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ISSUE 63 • DECEMBER 1991 • £2.25
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CHRISTMAS
ISSUE

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PCW
GAMES

1991

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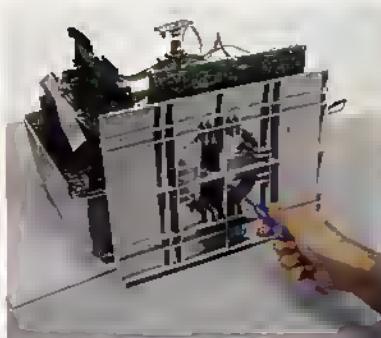
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1991 has been one of the most influential years that the PCW has ever seen. A wealth of new products has been released into the market – and the industry has been busier than ever before. We take a look at some of the products which have emerged, and invite the most significant figures in the world of the PCW to give us their verdict on the fruits of 1991

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Make your PCW earn its keep this Christmas! We show you how you and your machine can produce some truly individual seasonal gifts!

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Boost the power of your PCW with a beefy 256k of extra memory! We show you how – in this month's step by step guide

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What better way to relax this Christmas than to be curled up in front of a roaring PCW with a game or two to play. Seasoned gamesters Dave Green and Tim Smith look at some popular games – new and old – available for your PCW

LOCPLUS

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A seasonal round-up of the most popular questions that LocoScripting Liz Bruce receives!

22 LOCOWFILE TUTORIAL

Getting in touch with all those long lost friends and relatives is a task which most of us will be carrying out at this time of year. Karen Donaghay shows you how to organise your Christmas list on a database

24 OVER TO YOU!

Have you discovered a useful LocoScript tip? Don't keep it to yourself – share it with other readers. We bring you this month's collection here

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Do away with your concordance and let the PCW help you find that crucial biblical reference! Martin Le Poidevin looks at a new program which allows you to do just that

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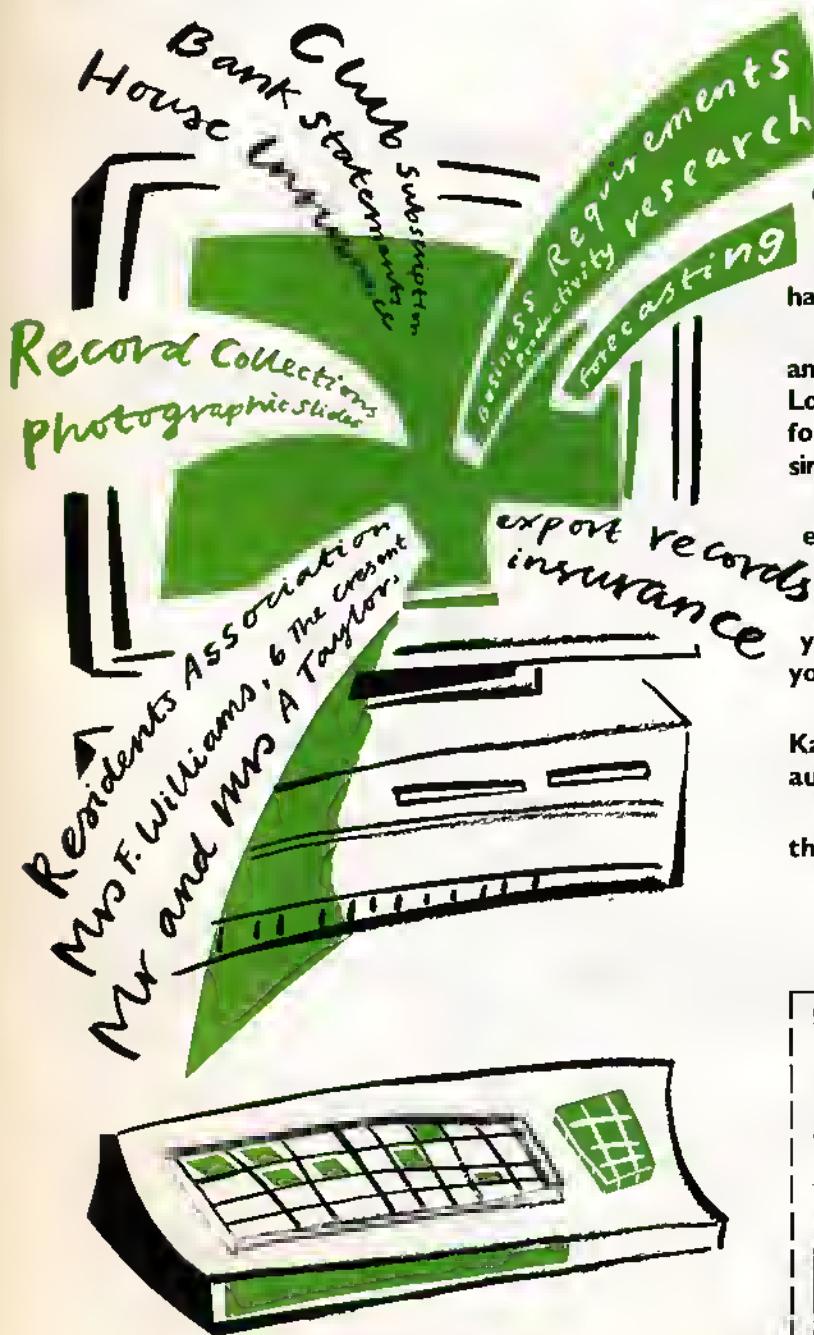
Choose the perfect Christmas PCW gift – without even having to go out shopping!

B5 POSTSCRIPT

90 COMPETITION

Win a selection of PCW games in our 'Spot the 8000 Plus team' competition!

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Sophie Lankenhau - Editor

Welcome to the Christmas Issue of 8000 Plus! We have some pretty major news to announce this month concerning the magazine. As from the January Issue, 8000 Plus will be changing its name to PCW Plus. This is not the launch of a new magazine, or a re-launch of 8000 Plus. It is just a simple but significant change of name. We have decided to become known as PCW Plus since the arrival of the new PCWs. We feel that the name is a more accurate way to describe the contents of a magazine which caters exclusively for the needs of owners of the Amstrad PCW - whatever the model you own. So, next month, be

sure to look out for PCW Plus on the shelves of your newsagents. Remember, there will be no change inside the covers of the magazine - you'll still find all of the regular features which you look forward to every month. The name is the only thing that is changing!

So, what have we got in store for you this month? Well, we're feeling decidedly festive for our December issue - if a little nostalgic. We've had a look at the significant releases of the year, and have managed to persuade five top industry figures to tell us their verdict on the products which have emerged over the last twelve months.

Their opinions range from being diverse to downright obscure - so turn to page 10 for more details.

We've also showed you how to use the PCW to make your own Christmas gifts. Page 33 reveals just how! Plus, we've a step by step guide to installing extra memory to the PCW8256.

Don't miss our review on page 29 of Biblioter Wordkey, the first computerised index of the Bible for the PCW. And finally, why not have a go at some detective work in this month's back page competition. Identify the 8000 Plus team member, and win some of the PCW games reviewed this month. Merry Christmas!

'ROCKET' SPREADSHEET READY FOR LIFT OFF

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The spreadsheet to beat the rest? - Software Imperative's new Rocket shows its versatility in dealing with all kinds of figures

Software Imperative, the company who brought you Flipper and Foreword, have just launched their new PCW spreadsheet program, 'Rocket'. The program includes many advanced features never seen before on PCW spreadsheets, and is therefore hoped by Software Imperative's Andy Wilton to become a "market leader".

Unlike previous PCW spreadsheets, Rocket will offer a maximum sheet size limited only by the total memory of the computer. "Most other spreadsheets have a strict fixed limit on how big the sheet can be," Andy Wilton explained, "which could be restricting if you wanted to store several years of accounts, for example." Rocket, on the other hand, will be able to take full

advantage of all the memory of the machine, allowing spreadsheets of up to a megabyte or more in size.

You might expect the program to slow down a lot when dealing with spreadsheets this large, but fortunately Rocket incorporates an ingenious technique to prevent this from becoming a problem. The technique, known as 'optimal re-calculation', keeps track of how each value in the sheet depends on the other values. This means that whenever changes are made, the program can limit the amount of updating it needs to do, by only re-calculating the values which were dependent on the change.

In practice, this means that selecting 'automatic re-calculation', even on a very

large spreadsheet, will not noticeably affect the speed of use.

Moving around a Rocket spreadsheet is also extremely fast, due to specially written screen-scrolling routines. "The whole thing was originally written in assembler," Andy revealed, "because there's no other way of getting right down to the basics of the machine." You can even set up a maximum of 4 windows to look at more than one part of the spreadsheet at the same time.

Although the program does not implement the 3D spreadsheets originally planned, Rocket's third dimension is more than adequately catered for when it comes to its many forms of graphical output.

As well as the usual histograms and pie charts, Rocket can represent data in a variety of 3D forms, including block histograms and exploded pie charts. It is also possible to save both graphics and spreadsheet data to disc to be used by other programs.

"Personally, I think that Rocket's better than all the competition put together," said Andy Wilton. "It's a serious spreadsheet for the PCW, which it hasn't really had until now, with all the features that modern spreadsheets are supposed to include."

Rocket will be priced at a deliberately competitive £44.95 (including VAT) and will be available before Christmas from Software Imperative, 11 Chapel Row, Queen Square, Bath BA1 1HN, telephone (0225) 425315. We'll be reviewing Rocket in next month's issue.

3.5 inch format grow in popularity

PCW software manufacturers seem to be having no trouble providing software on 3.5 inch discs for the new 9256 and 9512+ machines. Among the programs being made available in both 3 and 3.5 inch formats in time for Christmas are Arnor's definitive word processing package, Protect, and Pete Gerrard's 'very reasonable' Games Plus collection (reviewed on page 55 of this issue).

Further enhancements to the new 3.5 inch version of Protect include a printer

driver which will enable it to print out using the Canon BJ-10e bubblejet, as optionally supplied with 9512+ machines.

Announcements such as these naturally beg the question which will be on the minds of many PCW owners: is this the beginning of the end of 3 inch discs? Arnor's Mark Tilley maintains that the company will be supplying software in 3 inch form as long as there is both a demand, and a ready supply of the discs.

Amsoft, one of the UK's major distributors of PCW accessories, were out

of stock of 3 inch discs at the time of going to press, but claimed that they had no plans to stop supplying them. Disc manufacturers Maxell also confirmed that they would continue to be making 3 inch discs "for the foreseeable future", given the large market of existing Amstrad users.

On the basis of these reassurances, there certainly does not appear to be any need for 'panic buying' of 3 inch discs. Meanwhile, in the long term, it will be interesting to see how the 3 inch format fares against its slightly cheaper cousin.

Xmas holidays

Regular readers of our News Plus pages will notice the absence this month of Club News. Well, that column has gone on its Christmas break, and will return, bursting at the seams with news and information on your nearest PCW organisation in the New Year.

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Turns existing files into database without the need for any re-typing.

HYPertext PCW £17.95

Consider it as a 3-dimensional text processor where pages are linked by ideas and topics to make an interactive network. Suitable for creative reference systems, training aids etc.

EXPERT SYSTEM PCW £17.95

Interactively derives conclusions from knowledge in the form of rules and facts using fuzzy logic, while optionally explaining its deductions in English.

SECURITY FILE ENCRYPTION £17.95

much more than just password protection - hacker-proof coding and decoding of all files and programs using key phrases.

SUPASTAT STATISTICS £17.95

All standard statistics functions plus Correlation, Chi-Squared, ANOVA, Mann-Whitney, Wilcoxon, Kruskal-Wallis, Kendall, Page & Friedman, Jonckheere, F & T Test, Cross Tabulation, Scatterplots and data editing.

CPM+ SCANNER £17.95

Displays machine code contents of the computer memory in approximately 140 screen pages. Essential for peek and poke users.

UTILITIES COMPENDIUM £17.95

Packed with home and office programs including File Sorter, Word Counter, Mail List Labeler, Universal Calendar, Columns Formatter, Printer Control, Timer, Screen Commands etc.

COMPILERS

MIX C COMPILER £33.95

Professional C compiler produces stand-alone, executable COM files from source code. Closely adheres to Kernighan-Ritchie standard with full floating point arithmetic. Very good tutorial with examples - recommended for newcomers.

MIX C EDITOR £19.95

Locoscript-style menu presentation for C programs.

MIX C TUTORIAL EXAMPLES £5.95

100 programs for C.

MIX C GRAPHICS LIBRARY & ASM UTILITIES £9.95

100 programs for C.

THE MIX C WORKS! £49.95

Based on the ANSI-1974 Standard for the industry - standard data processing language. Features runtime error messages, random access and sequential files and integration of assembly language using the DR MAC assembler.

NEYADA COBOL COMPILER £33.95

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Affordable print quality from Star

If you're looking to upgrade the output of your current dot-matrix or daisy-wheel printer to something a little more sophisticated, then Star Micronics UK may be able to offer you a reasonably priced alternative.

Recent expansion of the company has resulted in across-the-board price cuts in their range of 24-pin dot matrix printers, which provide improved print quality over the 9-pin printers supplied with the 8256, 9256 and 8512 PCWs. Recommended retail prices now start at £249 for the LC24-10, up to £399 for the wide carriage LC24-15, but remember that you will have to pay extra for the appropriate interface to connect these up to anything other than a 9512 machine.

Alternatively, if you've just had enough of the noise of sluggish dot-matrix systems, you might be more interested in the latest addition to Star's range of printers - what they so succinctly call a "near silent personal printer using advanced non-impact ink jet technology to produce near laser quality print".

If that all sounds a little familiar from somewhere, you're not mistaken; the SJ-48

is one of the first look-alike printers based on the same principles as Canon's very own 'bubblejet' printer, the BJ-10e, as reviewed earlier this year in the April issue of 8000 Plus.

The advantages of bubblejets are fairly well summed up by Star's description - they're quiet, fast, small enough to be easily portable and offer almost the quality of laser printers at a fraction of the price.

Star's version appears to be very similar to the Canon model, differing mainly in terms of its internal circuitry. This means that it has a different range of built-in fonts available, and can offer a slightly faster print speed of 100 characters per second. Probably of greatest interest to PCW owners, however, is the fact that the Star is Epson compatible, which means that it should be easier to persuade it to work with the PCW - the Canon BJ-10e designed to work with IBM PC machines, and therefore requires additional printer driving software which not all PCW programs include.

At the same price as the BJ-10e, £345 plus VAT, the SJ-48 looks like it could give the Canon bubblejets a good run for their

money. If you're interested in finding out more, Star's address is Star House, Peregrine Business Park, Gomm Road, High Wycombe, Bucks HP13 7DL, telephone (0494) 471111.



Send in the clones? - the Star SJ-48 challenges Canon's dominance of the bubblejet printer market.

PCWs to help the homeless

Christmas is a time to be thinking of others, so it's good to hear of the PCW being used to help some of the less fortunate members of society. Quaker Homeless Action are a small voluntary group who make use of church halls to offer temporary overnight shelter for people living on the streets of London. They use a 9512 to cope with the organisational demands of their work, but due to recent expansion, would like to make an appeal for any surplus PCW hardware that generous 8000 Plus readers could donate to their cause.

The group have spent the last twenty years inviting London's homeless to spend Christmas together in their shelters. Now they operate throughout the year, and hope to extend their soup kitchen service all over central London. The group receive no government funding, and are totally dependent on voluntary support. So if you've got any surplus PCW hardware that you could donate to this charitable cause, please get in touch with Stephen Constantine at Quaker Homeless Action, 62 Elmfield Road, Balham, London SW17 8AN (081) 675 2095.

Holidays in the sun

While 8000 Plus sometimes hears of users driven to quite desperate measures to master their PCWs, we were still surprised to receive a letter offering a free stay in Spain in exchange for personal tuition in MicroDesign 2. Grandmother Mrs Rita Wigginton would like to use her PCW to produce a small 'art magazine', and will provide full accommodation at her villa in Javea in return for a lesson per day in MD2. If you're tempted, then further details are available from Mrs Wigginton, Head-Line Communications Limited, PO Box 22, Heretord HR4 8UW.

Meanwhile, a little closer to home, Victoria College, Lancaster, will soon be launching a programme of intensive weekend courses on using the PCW. 25th January and 28th March 1992 are the dates of the first of these courses, which have been organised in conjunction with the Lancaster Tourism Office. Both residential and non-residential places will be available on the courses; for more information, please don't hesitate to ring Ron Sands on (0524) 62530, or write to Amstrad Weekends, Lancaster Tourism, White Cross, Lancaster LA1 4XQ.

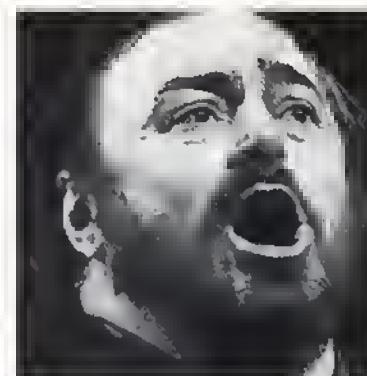
The Professionals

In response to the release of the new PCWs, SCA Systems have just brought out the 'Pro 9256' combined memory expansion and centronics printer interface.

Providing an extra 256k of RAM and the ability to link up to all sorts of different printers, Pro9256 effectively turns a standard 9256 into a basic 9512+, and is intended to complement the Pro8256 interface which SCA produce for 8000 series machines.

Pro9256 consists of a brightly coloured box which attaches to the expansion port at the back of the 9256, and comes complete with a conveniently long printer cable. SCA have also been working in conjunction with Locomotive to provide the appropriate software to make use of the printer interface. Pro9256 retails at £69 and is available from SCA Systems, 61 Ferringham Lane, Ferring, Worthing, West Sussex BN12 5LW (0903) 700288.

All change!



All this and 'brains' too - new recruit Dave Green brings an air of academic respectability to the 8000 Plus team.

Sharp-eyed readers will have noticed the gradual disappearance from the magazine of our Technical Editor Karen Donaghay, who has left 8000 Plus to start a new life in the bustling metropolis of London. Karen's departure means that Martin Le Poidevin is now promoted to the post of Senior Staff Writer. Replacing Martin in the position of ordinary Staff Writer is the newest addition to the 8000 Plus gang, Dave Green, who joins us straight from completing an MSc in information technology at Edinburgh University's Department of Artificial Intelligence.

Dave has worked on the Edinburgh publications *Midweek* and *Festival Times*, and was partly responsible for Oxford University's notorious 'Fun' Magazine. He lists his hobbies as "information theory, home science experiments and heavily understated irony", and hopes that working on 8000 Plus will help him overcome his current habit of referring to himself in the third person. Well, best of luck with that one, Dave!

Hanging on the telephone

To err is human, but printing the wrong telephone numbers in 8000 Plus is something we do try to avoid.

So, our apologies to any readers of November's issue who wanted to get in touch with PCW-World on the subject of colour LocoScript printouts, since the number we printed for them was unobtainable. PCW-World can be in fact reached on (0384) 66269.

And despite giving the Gem hard disc such a sparkling review last month, somehow we contrived to leave out any means of contacting the manufacturers. Cirtech can be found at Monksford Stables, Newton St. Boswells, Melrose, Scotland TD6 0RU, telephone (0835) 23898.

Competition Results

Way back in September, we ran a rather special competition to celebrate the 5th birthday of 8000 Plus. We had simply stacks of prizes to give away - but the question we asked you proved to be more difficult than we anticipated! The first editor of 8000 Plus was indeed, Chris Anderson, the Managing Director of Future Publishing.

We had a real struggle to find entries which bore the correct answer, and claimants for all the prizes which we had on offer. So, here is the list of winners - not necessarily in any order, for reasons that we'll explain in a minute! Lesley Adkins of Langport, Somerset, wins LocoFile; Peter Bricknell of Hurstpierpoint, W Sussex wins Flipper 3; Arthur Nowell of St Albans, Herts, wins MicroDesign 2; J F Little, of Wells, Somerset, wins Cracker 2; C H Rivers of Nailsea, Bristol, wins Foreword; John Finney of Raddlett, Herts, wins Fun School 3; A Cowell of South East London wins Creative Technology's Utilities disc. The following ten people win an 8000 Plus binder: P J Feast, Sambourne; J E Lewis, Norwich; N Hurst, Coulsdon; W Prinn, Suffolk; H Davies, Wigtownshire; V J C Cooper, Anglesey; E Southwick, Gravesend; D Walker, Cardiff; S Locks, Tonbridge; G Brewer, Alton. The following five readers win 8000 Plus T-shirts: P Clowes, Cumbria; Bob Kelly, Warrminster; G Ritchie, Rode; M McKean, Ayrshire; M Footman, Portsmouth.

And that's it - apart from the winner of the bonus prize of a day out in Bath at the 8000 Plus office. We took the winning entries, shuffled them around, and pulled out the lucky winner - who is... Arthur Nowell, of St Albans! We'll be in touch with you soon, to organise your trip!

Soldering on

Even with the assistance of our step by step walkthroughs, the prospect of poking around the insides of their machine with a hot soldering iron can be a little daunting for many PCW owners. And while many hardware companies offer the alternative of sending away the PCW away to be upgraded, sometimes the anxiety of a long separation period can be almost as traumatic.

That's why Windmill Computing are now offering a combined supply and installation service for PCW hardware (and software) within the North West of England. All the work is carried out in the user's home or workplace, minimising the amount of time which the PCW is out of action. Basic tuition on how to make the best use of the hardware and software is also available at the time of setting up.

The selection of hardware offered by Windmill includes RAM expansions, Sprinters, and all sorts of disc drives, while their stock of software can only be described as equally extensive. Prices for the services that the company offer range from £15 per hour for software tuition to £35 to install a hard disc.

In addition, Windmill have put together a variety of 'starter packs' intended to provide the first-time PCW buyer with everything they need to get started with their new machines. Based around a 1 megabyte 8512 and built-in Sprinter, all packages include such indispensable 'extras' as printer paper and spare discs, along with the software required for applications as diverse as word processing, accounting, graphic design and desktop publishing. Windmill will provide you with more specific details on prices and starter pack components.

By providing the sorts of services that might otherwise more commonly be associated with expensive PC systems, companies like Windmill are showing that the PCW can be taken seriously in a business environment.

Windmill Computing can be contacted at 175 Old Clough Lane, Walkden, Worsley, Manchester M28 5JA, telephone (061) 799 1878.

As easy as AGB



A selection of clip art from AGB - the one on the right is an archaic word processing device known as a 'typewriter'.

AGB Illustrations, purveyors of fine clip art, are celebrating the festive season in style with a discount offer made exclusively to readers of 8000 Plus. During the month of December, anyone buying more than 4 clip art discs from AGB - and saying that they are a reader of 8000 Plus - will receive a fifth disc of their choice, absolutely free.

Each AGB disc normally costs £12.50, so taking advantage of this offer does represent quite a major investment to liven up your desk top publications. However, AGB are confident that their commitment to quality, and in particular, the use of hand-drawn or constructed images rather than scanned illustrations, make their clip art well worth the price.

AGB's selection of clip art has grown since it was last reviewed in September's issue of 8000 Plus, and now features 8 discs and a wide variety of artistic themes. All the discs can be used with MicroDesign 2, and most are also available for Slop Press. The offer will be open until 31st December 1991; further details of AGB's range of products can be obtained from 5 Queens Drive, Prestwich, Manchester M25 8HQ, telephone (061) 773 2702.

Language!



Now you can recreate the 'good old days' of the early 16th Century, with the help of Literatus and MicroDesign 2.

One of the best things about desktop publishing is that you don't have to produce documents that look like they've been put together by a computer. Crazy Diamond Design's latest product, the 'Literatus' package of MicroDesign 2 fonts and graphics with a distinctly historical flavour, proves this beyond doubt.

The package includes a selection of attractive borders and 17 different fonts, each with unique sounding names like 'rustic' and 'uncial'. All you need, in fact, to create documents with the appearance of historical authenticity. The beautifully presented manual incorporates some interesting historical background on the use of the fonts, while the disc also features a program to convert modern-day text into a more historical form, replacing long S's with those funny characters that look more like F's. The package costs £15.99 and is available from Crazy Diamond Design, 23 Dawes Close, Armitage, Rugeley, Staffs WS15 4BE.

Try AUTOLARGE for size

Autolarge is a new PCW program which allows you to produce large text characters from within LocoScript. The program's author, George Day, might be familiar to readers of the LocoScript user's magazine, Script, from his articles on how to construct large text out of user defined characters. The Autolarge system, however, goes far beyond this, making use of both LocoMail and LocoFile to generate big characters automatically.

Autolarge characters are available in a variety of styles and sizes, and can be printed horizontally, vertically, diagonally or in reverse video. The program can therefore be used as budget desk top publishing system, ideal for producing

cheap signs or posters. The program itself costs £12 for standard 9-pin printers, or £18 for the 24-pin and bubblejet version, from Adstrad Ltd, 26 Cavendish House, St Leonards-on-Sea, East Sussex TN37 6BJ, telephone (0424) 429492.

THE WILD
HIST
RAIL
ON

From medium to big to absolutely enormous - the output of Autolarge on a standard 9-pin printer.

JUST PLUG IN FOR POWER

Designed and manufactured in the UK, SCA products are backed up with a first-class telephone support service and a money-back guarantee



SCA Rampacs

- Compatible with all Amstrad PCWs.
- Simply plug into the expansion port.
- Tested Locoscript compatible by Locomotive Software.
- Through-connector allows continued use of other peripherals.
- Three versions available- 512K, 768K and 1.5Mb.
- Upgrades available to existing Rampacs.

To upgrade your existing SCA Rampac simply send your Rampac to us and we will upgrade and return it within 48 hours
512K to 768K, £30.39 + VAT = £35.71 post free
512K to 1.5Mb, £100 + VAT = £117.50 post free
768K to 1.5Mb, £75 + VAT = £88.13 post free

512K

- Adds 512K of RAM. Instantly!
- Only £89.00 + VAT.
Total £104.58 - postage free.

768K

- Will upgrade your PCW 8256 to a full 1 Mb.
- Only £109 + VAT.
Total £128.08 - postage free.

1.5Mb

- Three times the memory of basic Rampac for only twice the price!
- Allows Locoscript users to use the maximum 2Mb memory on 8512/9512 machines.
- Flipper 2 recommended for CP/M users.
- Only £189 + VAT.
Total £222.08 - postage free.

If you use Locoscript you should have a Rampac- but don't just take our word for it, see what the magazines say-



SCA Interfaces (serial/parallel) For Amstrad PCWs

PROFESSIONAL

- Full 8 bit Centronics parallel port for printers and plotters.
- Full duplex RS232 serial port for communications at all speeds between 75 & 19200 Baud.
- User manual supplied with details of cables.
- Only £48.00 + VAT.
Total £56.40 - postage free.

PROFESSIONAL PLUS

- All functions as Professional
- Real Time Clock/Calender with on-screen digital clock display
- Demonstration and communications software supplied on a 3" diskette
- Automatic CP/M time and date stamping.
- Only £57.00 + VAT.
Total £66.98 - postage free.



SCA Systems Ltd., 61 Ferringham Lane, Ferring, Worthing, West Sussex BN12 5LW
Telephone 0903 700288 Fax 0903 506606

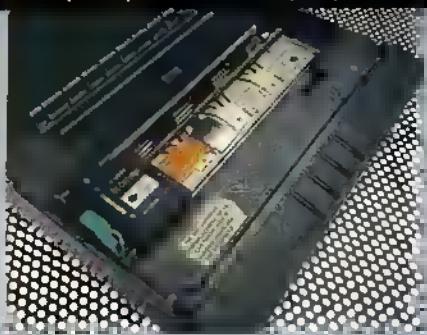


The PCW in 1991

The PCW industry has just come to the end of one of the busiest periods that its six-year history has known. We cast our eyes back over the past twelve months – and invite some prominent industry figures to give us their opinions of the year's developments

CANON BJ-10E BUBBLEJET PRINTER

£345 (+VAT) • Canon UK • (081) 773 3173



It sounds almost too good to be true – a high-speed, near silent, near laser quality printer for not much more than the price of a 24-pin dot matrix. Or, to put it another way, text printed to

the sort of standard you'd expect from a daisy wheel, but with the ability to produce graphics into the bargain. And all this from a box measuring only 12 inches by 8.5 inches, and weighing less than 2 kilograms.

The miracle is made possible by the use of the new bubblejet printer technology, an ingenious system which squirts tiny bubbles of ink on to the paper to form characters and graphics. Compared to the typewriter-style action of dot matrix and daisy wheel printers, the fact that bubblejets don't have to keep striking a ribbon to produce marks on the page means less mechanical moving parts, less noise, and generally faster printing all round.

The BJ-10E features a range of options,

including an ink-saving 'economy mode' of printing, which has a similar appearance to 'draft mode' on a dot matrix.

The Canon bubblejet probably offers the ideal upgrade for any PCW owner looking for high quality output of both graphics and text, at a price well below that of even the cheapest laser printers. Plus, it's even small enough to be genuinely portable.

Drawbacks: The BJ-10E does need special 'driver' software which not all programs include, although making it an option with the new 9512+ machines may improve the situation. And loading paper without the cut paper feeder (which will set you back an extra £54) can be a little tricky.

TEQNICHE PCW102 KEYBOARD

Around £70 • Pan Euro • (0925) 234170



One of the areas where Amstrad cut a few corners to keep the price of the PCW low is the keyboard that comes with the machine. Although the standard keyboards work

perfectly well, and the 9512's is something of an improvement over those supplied with the 8000 series, criticisms have ranged from the cramped arrangement to the overall 'rattley' feel of the keys themselves.

The Teqniche keyboard addresses the main problem areas of key layout, key spacing, and key action. The unit itself is quite a bit larger than the original, and benefits by having the main groups of keys – the numeric keypad, and the cursor keys, for example – situated well away from the others.

The key arrangement used by the Teqniche is based on that found on PC compatible machines, and while it may seem unfamiliar at first, should soon put an end to

hitting [F5] instead of [RETURN]. The action of the keys is also a major improvement over the usual PCW keyboard, giving a far more positive 'click' response when each key is depressed.

Another improvement is that the Teqniche board doesn't have that intriguing tendency shown by the PCW keyboard to generate extra characters for certain combinations of keypresses.

We use Teqniche keyboards all the time on the 8000 Plus PCWs, and, after a while, it's hard to imagine typing on anything else.

Drawbacks: The new arrangement of keys will take a little bit of getting used to, and the small right-hand [SHIFT] key can sometimes be confused with [EXTRA].

CIRTECH SPRINTER

£89.70 (includes installation) • Cirtech • (0835) 23898

Much as we love the PCW, there are occasions when the sheer slowness of the machine can be more than a little irritating. Now, Cirtech's Sprinter offers the possibility of accelerating the PCW to almost twice its normal speed, all through a simple hardware add-on.

What happens when you install a Sprinter is that the original Central Processing Unit (CPU for short), which carries out the PCW's main computing operations, is simply replaced by a faster version of the same thing. It's a bit

like taking the old engine out of your car, and putting a more powerful one in its place.

The new Sprinter CPU runs at twice the speed of the old one, but other factors mean that, in real terms, this becomes a reduction of about 30 to 50 per cent in the time taken for most tasks. The Sprinter can't change the rate at which the disc drives or printer operate, but what you will notice is that the whole machine feels quite a bit 'nippier' than before. With a wide choice of installation options, including

one that just attaches to the expansion port, the Sprinter offers a convenient and unique solution to the problem of the slow PCW especially for anyone who's everyday use of the computer really does feel the 'need for speed'.

Drawbacks: Sprinter will not work in conjunction with SCA RamPacs or Isenstein memory boards. But you can install extra RAM (including any SCA chips you may already own) as part of the Sprinter itself.

CREATIVE TECHNOLOGY'S KEYMOUSE

£54.95 • Creative Technology • (0889) 567160



There have been mice for the PCW before, but none quite like Creative Technology's KeyMouse. It's easy to install, versatile enough

to work with a number of very different programs, and the all round easiest to use PCW mouse we've seen.

Unlike its predecessors, the interface which connects the KeyMouse to the PCW goes between the keyboard and the computer, instead of attaching to the expansion port at the back. As well as cutting down on the amount of add-ons stuck precariously on to your expansion port, this also means that there are a surprisingly wide range of programs which the KeyMouse can be used with.

Mice are most useful in desk top publishing applications, and, true to form, Creative Technology's own DTP package, MicroDesign 2, becomes far more Intuitive (and a lot faster) to use with the KeyMouse -

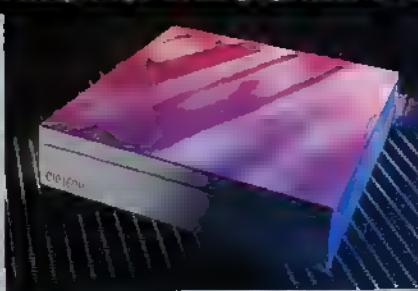
you just point at where you want to be on the screen, and you're there. Editing pictures within ProScan also becomes a lot easier with the KeyMouse in hand.

But that's not all - the KeyMouse can be used within both LocoScript and ProText to select text, and its three buttons can be used as replacements for the [RETURN], [EXIT] and [STOP] keys in CP/M. The KeyMouse features a number of options controlling the way its movement is translated on to the screen, and comes complete with a 'mouse mat' giving it the right sort of surface to run on.

This is the mouse to consider if you're tired of using the keyboard to move around in M02 or ProScan, and it might even help out with your word processing too.

CIRTECH GEM HARD DISC

£199 (+VAT) for 20 megabytes, £299 (+VAT) for 40 megabytes • Cirtech • (0835) 23898



Put an end to disc-swap misery with Cirtech's new low cost hard drive. It could mean the end of all that rummaging around in your stack of floppy discs, as you search in desperation for that elusive file you had to save somewhere

else when it wouldn't fit on the data disc with the rest of the LocoScript documents. What's more, the rapid access time of a hard drive means that you'll be able to access your files a lot faster, typically 5 to 10 times quicker than from a 'floppy'.

The main breakthrough offered by the new Cirtech Gem is one of price - just under £200 (excluding VAT) for any sort of hard disc is certainly a first for the PCW. And you get a lot of storage for your money - even the smaller 20 megabyte version offers you a total capacity equivalent to thirty CF2DD discs, or over a hundred CF2 ones. This appears to be the computer in the form of 4 whole new drives,

each of 5 megabytes in size (or 10 megabytes in the 40 megabyte version).

The Gem features 'intelligent' internal circuitry, which makes setting it up extremely straightforward, and can be configured to start up automatically with LocoScript or CP/M when you switch your PCW on at the start of the day.

Both the 20 and 40 megabyte versions are good, solid, fast and well-priced hard disc drives which could prove invaluable to any PCW owner with a large collection of floppies. Drawbacks: The Gem drive won't work with Flipper, which is something of an oversight since the two could have been a very powerful combination.

FLIPPER 3

£34.95 • Software Imperative • (0225) 425315

Flipper 2 was a revolutionary program by PCW standards, allowing you to keep two different programs in the computer at the same time, which you could then flip between whenever you wanted. Flipper 3 is even better, allowing a maximum of 8 different 'environments' on the PCW, as well as providing a multitude of other features which Flipper 2 lacked.

The first difference you notice with the Flipper 3 disc is that it is self-booting, so you

don't need to fiddle around with CP/M before starting it up. Like its previous incarnations, the program redefines the [SHIFT] [EXTRA] [EXIT] combination of keys, so that instead of resetting the PCW, they cause control to be passed to Flipper. This gives you access to a selection of options, all attractively presented in menu form. These give you full control over the different environments which Flipper 3 is looking after inside the PCW, allowing you to

'launch' new programs, 'trash' old ones, and of course to flip between those which are already running. You can save all the environments to disc, to be reloaded at some point in the future. Flipper 3 is a major improvement on earlier versions - the versatility adds to the power offered by Flipper 2, while the menu driven operation makes it quite a bit friendlier to use. You will however, need lots of memory to use Flipper 3 to its full potential.

WHAT THE INDUSTRY SAYS...

The modest: Nik Holmes,
CREATIVE TECHNOLOGY

"This year has been particularly good for the PCW hardware industry, and both the Gem hard disc and the internal 3.5 inch replacement B drives are significant advances. The self-booting Gem hard disc is a great leap forward in convenience and price.

For DTP users like ourselves, good quality print is a must. The BJ10-e wasn't the first inkjet printer (we still love our old Deskjet), but it did bring

the price of top-quality printing down by another £100 or so, which is important. Hopefully, 1991 will see the price coming down even further.

Those who spend their precious leisure time waiting for MicroDesign2's 24-pin printing or Tweak's Superfine Rotate will find that Sprinter is a godsend. It fits beautifully into the PCW upgrade path by combining an accelerator with extra RAM, and this in turn makes Sprinter 3 an indispensable product for anyone running several different programs. And our very own

KeyMouse is a top-quality product at a knock-down price, but then I'm bound to say that, aren't I?

All of which makes choosing the best product of the year very difficult. We must conclude that 1991 has produced a turbo-charged mega-PCW, and all its component parts are as essential as each other. And the winner? Well, since modesty has never been our strong suit here at CT, I will nominate our own Tweak program; as an inspiration for sheer silliness, there's been nothing to beat it!"

Our verdict

Sophie Lankenau, Editor

"I think that this has been a tremendous year for the PCW. What we have seen is true innovation: SCA's performance boosters, KeyMouse, the Tequiche keyboard - all these things are mould-breakers. And that is truly exhilarating. So next year, I would hope to see something similar - it's unlikely to happen, but I think there's a desperate need for a shake-up in the quality of after-sales support for customers. At the moment, there are only a few companies who want to know the end user after they've taken his or her money. It's a disgrace. I also wish that Amstrad would re-vamp the daisywheel printer - it's all very well offering an alternative in the form of the BJ-10e, but if they spent some money making the daisy half the size and half as noisy, it would be no bad thing."

Dave Green, Staff Writer

"It's been a fantastic year, but in 1992, I would like to see a cut-down version of the UNIX operating system, bringing the PCW up to modern professional standards."

Martin Le Poidevin, Senior Staff Writer

"How about this: a fast, mouse-driven word processor. Loads of icons to point at, and as few key strokes as possible!"

The confident - Andy Wilton, SOFTWARE IMPERATIVE



"Clearly, the most important products this year have been the 9256 and 9512+. By assuring the future of the PCW standard, their arrival will produce a huge boom in software titles over the next few years. This means existing users will benefit from the new machines without actually having to buy one of them - something you can't say about most products! - though I'm sure the 9512+ / bubblejet combination in particular will tempt a lot of people to upgrade."

Otherwise my product of the year would have to be either Ciritech's Sprinter or Creative Technology's KeyMouse. Impressive though Sprinter undoubtedly is, I think the installation

The hopeful - Peter Langford, SILICON CITY

"Such a lot has happened this year. Touch typists did find the Tequiche keyboard a godsend. The Gem hard disc has spectacularly slashed prices in a limited market. Sprinter is for those who live in the fast lane. Canon's quiet, high quality budget BJ-10e printer plus MicroDesign will revolutionise desktop publishing. KeyMouse is simply

brilliant and people are probably buying MicroDesign just so as they can also have KeyMouse!

My winner must have widespread appeal. Modesty prevents me selecting our internal 3.5" disc drive, even though it will rescue thousands of PCWs from the scrap heap of failed 3 inch disc drives and obsolete 3 inch discs - and even though it outsells every other product we stock. I am torn between the new SCA Pro9256 because it will

process is too offputting for a lot of people: that's a shame, because the extra power really makes a difference, and it's an absolute bargain at the price.

KeyMouse is right at the other end of the scale: because it connects directly to the keyboard socket, there aren't even the usual expansion port overcrowding problems. This should get KeyMice (KeyMouses?) on a lot of desks, a fact that could be very significant over the next year.

Widespread mouse ownership coupled with the right kind of software support might just turn the PCW into some kind of poor man's Apple Macintosh - and that's a very attractive proposition indeed!"

transform an initially disappointing and limited new PCW9256 into a versatile and useful computer. Combine that with Flipper 3, the difference Flipper can make to everyone who runs more than one program is astonishing.

For next year, I would wish for a 'spoken' word processor, or even a viable interface stacking device - but I will settle for more performance boosting, a trackball and a cracking new spreadsheet!"

The imaginative: Howard Fisher, LOCOMOTIVE SOFTWARE

"The best product in 1991 might have been the new PeW9999. Taking advantage of the developments in technology since the PCW8256 was launched over six years ago, the PCW1024 comes with a faster processor, compatible with the old Z80 and 1Mb of RAM, yet costs no more than the PCW8256 that it replaces.

And the new machine comes with a built-in bubble-jet printer based on the Canon BJ-10e mechanism, but driven directly by LocoScript, so keeping the cost down and allowing a wider range of characters and effects to be printed.

Regrettably though, no such

machine was released.

In the absence of the 91024 then, you can get close to it with a PeW9512+ and Canon BJ-10e with an SCA Rampac. For this set-up, my product of the year has to be our very own LocoFont BJ, which reaches the parts of the BJ-10e that other software cannot reach - including printing in italics, and printing in a range of typefaces.

As to next year, there's one new product I really would like to see. That's a suitably sized, suitably priced PC with modest hard disc, bundled with a Canon Bubblejet or HP Deskjet printer - perfect for running LocoScript PC - and the only possible way at the moment of getting close to the PeW91024!"



The reflective: Peter Mydlarz, SCA SYSTEMS

"The most memorable thing for me has been the launch of the new PCWs. Having been on tenterhooks about their arrival months before the announcement, I had been ready to go wherever in Europe they may turn up. So I was astounded during a visit to Amstrad's headquarters, to see one - and then to be allowed to actually take one away with me.

This PCW was apparently one of ten prototypes, and I could keep it as long as I needed! Now, my dealings with Amstrad in the past have been with teeth gritted, so I was greatly relieved that the people I met there were human,

friendly, and helpful. The PeW9256 itself is quite a desirable machine, with a small footprint and rounded contours. It was re-styled by the same Amstrad person who face-lifted the old CPC machines - although I have to say the 9512 could have done with the same treatment. Functionally it is the same old PCW, of course; and with a million sold, why change it when it works?

Back to base with the PCW, we found that it was difficult to add internal memory, and that our existing add-ons couldn't be used. So, in co-operation with Locomotive Software, we produced in one month, a new add-on, ready for Amstrad's official launch of the new machines. The 3.5inch drive causes a small compatibility problem

with the old PCWs, so we designed a cheap serial communications port.

We are co-operating with Silicon City on 3.5 inch drives, and on IBM compatibility with a module from the PCW Works business software suite.

At the present moment, we have a 256k RAM printer interface, and the serial port. In the future, there should be add-ons for 1.5 megabytes of RAM, an Accelerator, hard discs, fax modems, networking and so on.

The new machines have given the PCW a brand new lease of life, and they will provide many more people with a good, well-priced word processor which they will find is capable of doing so much more besides!"

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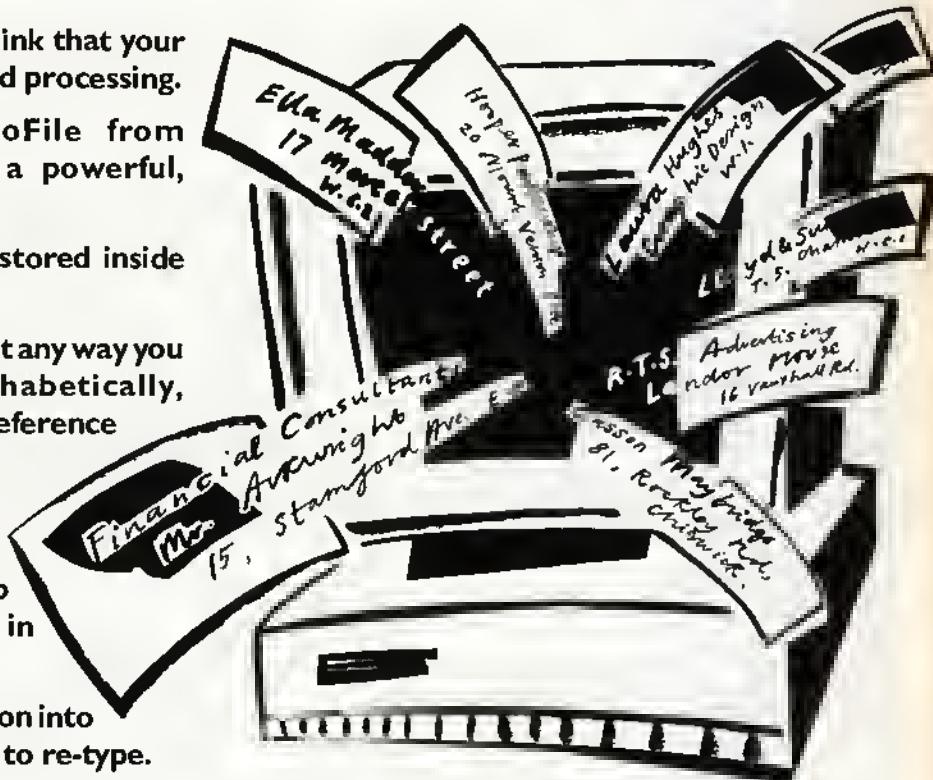
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Now you see it

Our example has a bit of an oddity in it: the 'PRINT' after the colon in line 400 has nothing to print!

Except that it has: whenever BASIC sees a PRINT command, it knows to add a RETURN to the end of whatever it is, and to move down a line. If there is nothing to print then it just leaves a blank line, which we can use to make the screen look much neater.

Scanning the Menu

Whatever program you are writing, two things are important: that it is sensibly constructed, and that everything happens in the correct order

The secret of good programming is not knowing about BASIC. That only comes in at a late stage in the proceedings. No, the secret of good programming is planning. In the software business, the people who get all the money are not necessarily those who write the code.

The real earners are those who plan the program: they will examine the customers' requirements, get to know the way they work, and then provide a plan for the program. This plan will make sure that the program is going to do

everything necessary, that there are no 'grey' areas which the program could fall into and never get out of, and that the program is 'outward looking'. Should there be any need for expansion in the future, they make sure that there will be points in the program on to which such expansions can be 'hung'.

This planning stage always takes place without any mention of BASIC code. Broad outlines are all that are necessary. Code would get in the way and confuse the issue.

In a program such as the one we

used last month, there is not much planning to do: the program simply runs from beginning to end, and then stops. Most programs, though, are more convoluted than that. They have parts which are used over and over again, and others which may only be used once.

For such programs you need two things: some means of re-directing the flow of the program, so that the bits that need repeating can be repeated as necessary; and an overall plan, so that you know when each of these sections should be brought into play.

STEP ONE: THE PLANNING

So let us sit down and think about a program. Something, perhaps to do with VAT. How many times have you been given two prices from two companies for the same item; one includes VAT, the other doesn't. What you need is a program which will either add VAT, or knock it off to give you the basic price.

A program, then, which can do one of two things depending on which option you choose. Imagine how it might work; you'll need an

opening screen which includes a simple menu and the means of pointing the program in the direction of the chosen option; then an area that takes a price without VAT and adds it; an area for the option that takes a price with VAT and removes it; an area for the option which prints out the answer, and a 'quit' area (every program must have a quit option, or else it falls into one of those dreaded grey areas where its behaviour is unpredictable!).

And hey presto – a program structure! We can now begin to add some details: the menu can be at line 10; then the first calculation at line 200; the second at 300; the print answer option at 400 and the quit option at 500. We will not use every line number in between these options, but leaving these blank spaces helps to highlight the structure, and gives us room to 'hang' extra parts of the program on to at a later date.

STEP TWO: IFs WITHOUT BUTs

The first part of our plan is the program menu. This needs to say: "HELLO" (or something), and "Which option do you want?". Then it needs some way of knowing what your chosen option is. The easiest sort of menu to implement is the 'keystroke' menu. The user hits one of the keys which the computer offers as options, and the program carries out a particular task depending on which key has been hit. (Notice that we are still analysing the action – no code as yet).

In our case we have three options, and so why not number them 1 to 3? Number 1 will be "Add VAT to the basic price" – if the user hits "1", then the program will go to the "Add VAT" area. "2" will be "Remove VAT", so if

"2" is pressed, then the program will jump as appropriate, and "3" will be the 'Quit' area.

We have analysed this quite naturally in an 'IF...THEN' sort of language. Luckily, this is also the language that BASIC uses. Look at line 70 of the program opposite. It says: IF IS – the user's input, and we'll see where it comes from in a moment – equals "1", then GOSUB line 200 (more on what this does later).

If the user's input doesn't equal "1", the computer will ignore the command after THEN, and will go on to the next line.

In our plan, line 200 was going to be the "Add VAT" area. You can see that lines 80 and 90 follow the same format, and continue to fit in with our original plan.

The IF format ends in 90. If the key press does not agree with any of the three options "1", "2" or "3", then it will pass through all these lines, and eventually (given a microsecond or so) reach line 100. This tells it to GOTO line 10, where it will repeat the menu, so that the user can try again. Hopefully, they will manage to enter a legal key press this time around.

Such 'safety net'-type features are an important part of programming.

To make a program completely idiot-proof, you should never assume that the user will give the correct answer.

So, once you have filtered the correct answers, always have some method of dealing with the illegal ones!

STEP THREE: GETTING IN KEY

Two things remain to be explained in these opening lines. One is line 60, the line that accepts the user's input. We already know one way of giving the computer information from the keyboard: INPUT and INPUT\$. The trouble with these commands is that any input

has to be followed with a [RETURN] key press to signal the end of it.

There is one more command of this sort, though, and that is INKEY\$. This command is specifically designed to get just a single character – a single key press. Once it has that

one character, the computer knows that the inputting has ended, and so, unlike INPUT, no [RETURN] is necessary.

The catch is that it expects the keypress immediately. And in computing 'immediately' means immediately, and that can lead to all

sons of problems. What we really need is some way of holding up the flow of the program until a key is pressed.

This is a common situation, and so a Mallard BASIC 'elieh' has evolved around it. Line 60 is, as they say, that cliché. It uses an 'IF loop'; if there is a key press, it assigns that to 'i\$' (so that it now contains the name of the key that was pressed); if there isn't a key press, 'i\$' remains empty.

The second half of the line checks 'i\$'. This is a second command within the same line; you'll see that it is separated from the first command with a colon ":". You'll find that all

BASIC programmers use colons like this from time to time, usually in order to make their programs more concise.

If it is empty (which is what "" means – quotes with nothing inside) then there has been no key press yet, so it goes back to the start of line 60 (the same line!) to have another check to see if a key has been pressed.

This 'loop' continues until a key has been pressed. Now 'i\$' is not empty, because it contains the user's input key, so the second half of the line is no longer true. What comes after the 'THEN' in that line will be ignored, and the program will move on to line 70, with

'i\$' now registering (hopefully) either "1", "2" or "3", the permitted menu options.

All that is rather complicated, but necessary – and a very good way of managing a menu in BASIC.

Notice that INKEY\$ has a 'S' at the end. The computer will therefore treat it as a 'string' – as characters rather than as numbers. This is why 'i\$' (again, a string) must be compared to characters in inverted commas (again signifying a string), so that the computer is comparing like to like. An error called a "Type Mismatch" will usually result if you try to compare, say, a string to a number.

STEP FOUR: GOTO AND FRO

Finally, we come to the extremely useful GOTO and GOSUB commands.

GOTO is easy: it orders the computer to jump directly to the line in question. So line 90 reads: 'If the user's input was "3", then go straight to line 500 (and if not, proceed in the usual manner to the next line)'.

Line 100 just says 'go straight to line 10'. As we've already seen, this provides a 'safety net': it should never come into play, because one of the lines from 70 to 90 should have 'filtered' out one of the user's responses, and sent the program off in a different direction. But you never can be too sure.

One thing to be wary of when using GOTO is getting caught up in an 'eternal loop'. A line such as 20 PRINT "A Loop":GOTO 20 (again, a line with two commands) will keep going round for ever and a day printing "A Loop", because the program provides no way out of it.

More often, a loop occurs over several lines, and creeps in because of a piece of carelessness by the programmer. Try to

imagine what would happen if, for instance, you forgot to type line 60 into the VAT program: the program would not wait for a keypress, 'i\$' would always be empty, and never "1", "2" or "3", so that the program would forever run from line 10 to line 100, and get sent back to line 10.

If, by mistake, one of your programs ever does get caught in a loop, there is a way out – press the [STOP] key.

GOSUB is a special sort of GOTO command. It is short for 'GOTO the SUB-routine at line...'. The sub-routine will be piece of program which ends with the command 'RETURN': this tells the computer to jump back to where the original GOSUB command was, and continue from there.

For instance, line 220 of our program says 'GOSUB 400'. What will happen at this point is that the computer will make a note of the position it is just leaving (line 220), and will go to line 400, just as we told it to.

Once there it will carry out the orders it finds there. In fact, there are only two: print the

'answer' and then (after the colon) print a blank line. Having done that, it comes across line 410, which tells it to RETURN to the place it has made a note of: in this case line 220, just after the 'GOSUB' command itself.

Lines 70 and 80 also have GOSUBs in them, and you can see for yourself where they jump to and where they return from. Don't be confused, though, by the fact that you can get one GOSUB inside another: line 70 GOSUBs to line 200, but then line 220 GOSUBs to line 400, RETURNS to line 220, and then line 230 RETURNS to line 70. Complicated, but much quicker and clearer than writing everything in the 'correct' order.

The other great advantage of sub-routines comes when you have an identical piece of code shared by two different parts of the program. Using a sub-routine you only have to write the code once, then 'GOSUB' to it whenever necessary. This is the function of the sub-routine at line 400 in our example; this method means you can save on typing and the amount of memory the program takes up!

STEP FIVE: AND FINALLY....

It often happens that what appears to be the most important section of a program is actually the easiest part of it to write. So it is in this case. The actual calculation of the VAT (at 17.5%) is surprisingly simple, and takes place in 210 and 310. The rest of the program just makes sure that the calculations happen as smoothly as possible, displaying the prompts and results in a convenient form for the user.

Given good, thorough, planning, every program you write should be as successful as this one. If you go to the trouble of thinking through every aspect of your programs in advance, you may even be rewarded with programs that work correctly the very first time you run them!

So, presented here now is the VAT program, in full. If you've never typed in a program before, help is at hand in the form of the 'How to type in a Listing' advice which appears in this month's Listings section.

10 PRINT ***** A PROGRAM TO WORK OUT VAT *****
20 PRINT "1) Add VAT to a basic price"

30 PRINT "2) Deduct VAT from an inclusive price"

40 PRINT "3) Quit program"

50 PRINT "Select an option (1-3)"

60 i\$=INKEY\$:IF i\$="" THEN GOTO 60

70 IF i\$="1" THEN GOSUB 200

80 IF i\$="2" THEN GOSUB 300

90 IF i\$="3" THEN GOTO 500

100 GOTO 10

200 INPUT "What is the basic price"; price

210 total=price*1.175

220 GOSUB 400

230 RETURN

300 INPUT "What is the inclusive price"; inprice

310 total=inprice/1.175

320 GOSUB 400

330 RETURN

400 PRINT "Answer = "total:

PRINT

410 RETURN

500 PRINT

510 END

***** A PROGRAM TO WORK OUT VAT *****

1) Add VAT to a basic price

2) Deduct VAT from an inclusive price

3) Quit program

Select an option (1-3)

What is the basic price? 3356.23

Answer = 3943.57

***** A PROGRAM TO WORK OUT VAT *****

1) Add VAT to a basic price

2) Deduct VAT from an inclusive price

3) Quit program

Select an option (1-3)

What is the inclusive price? 55468.23

Answer = 47207.01

***** A PROGRAM TO WORK OUT VAT *****

1) Add VAT to a basic price

2) Deduct VAT from an inclusive price

3) Quit program

Select an option (1-3)

What is the inclusive price? 222322.23

Answer = 189210.4

***** A PROGRAM TO WORK OUT VAT *****

1) Add VAT to a basic price

2) Deduct VAT from an inclusive price

3) Quit program

Select an option (1-3)

Ok

Our VAT program shows off its full range of features, working out the relevant prices for some rather expensive "luxury" goods

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Question:

I need to be able to print on a size of paper which is larger than A4. How do I convince the printer that the paper really is longer, and so persuade it to let me use all the space?

Answer:

We've had a lot of letters on this subject, which is really the question of how to set up a new paper type.

Your LocoScript 2 came already set up for certain paper types, usually A4, 11 inch continuous, A5 and 2 inch labels. In fact, you can have up to ten paper types available at one time. (If, for any reason you need more, then you can keep a different 'Settings Standard' file on a second start of day disc and use this whenever necessary.)

But how do you go about setting up a new paper type and why do so many people get into trouble with this?

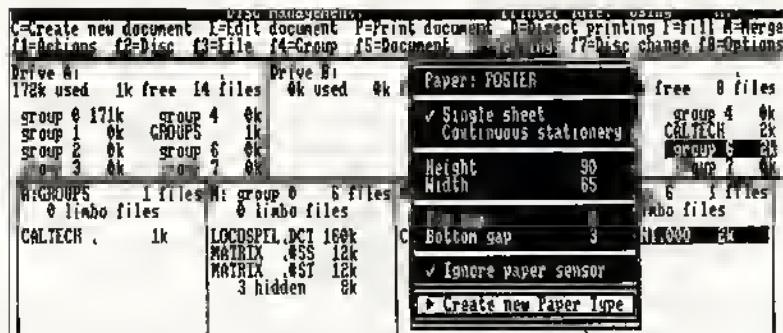
Let's take a hypothetical piece of paper which is 15 inches high and 10 and 5/6 inches wide. We'll discuss why we measure in sixths in a moment.

Obviously, if you load this paper into the printer and carry on with everything set to A4, a great deal of the paper will not be printed on. What we need to do is to find a way to tell the printer about the dimensions of the paper which we wish to use.

The first thing to do is to get out your Start of Day disc and put it in Drive A. Make sure it is not write protected. With the Start of Day disc in the drive



Here we see the full specifications for A4 paper, including the dimensions, whether it is single sheet or continuous, and that brain-busting paper sensor puzzler!



Now we have modified the A4 paper type to our own requirements - note the new name, height and width - and are all ready to go ahead and create a whole new type of paper

The menu which appears (shown in the top screendump on the left here) is the settings menu which allows various selections and changes to be made. The point about this menu and the reason we do this on the Start of Day disc is that these changes are fundamental to the program. Once these changes have been made, the computer will always know about them when it runs LocoScript, not just when a certain disc is loaded.

The cursor is set on 'New Paper Type' but in fact the first step is to move down one to select 'Paper Types' and then press [ENTER]. The menu which then appears (see the lower screendump on the left) shows the paper types which the printer already knows about, and which you can select by going into printer mode, pressing [F3] for Paper and selecting the type you need.

We're looking at this menu first because, as with most things in LocoScript, it is easiest to pick something close to what you actually want and then amend it. In particular, when setting up new paper types it makes life a lot easier if you first set the paper type to either single sheet or continuous, so as to be the same as the one you want to create.

In this case, as we are going to set up a paper type which is a single sheet and which is bigger than A4, we will leave the paper type selected as A4.

To see how the computer defines a particular paper type, put the cursor on it and press ENTER.

If we inspect A4, we can see that A4 is single sheet, with its height defined as 70 and width as 50. A top and bottom gap are already set and the 'Ignore paper sensor' is ticked.

So, where do the numbers for height and width come from? You may remember that in the session on printing,

Question:

How can I print a degree sign on a 9512 printer? The manual suggests [EXTRA] [H], but this must have been changed in my version of LocoScript. The degree sign is on the daisy wheel, so how do I get at it?

Answer:

Apparently [EXTRA] [H] only works in versions 2.11 to 2.16 - experts from the Hereford Computer Club recommend [ALT] [7] for owners of later versions.



Pressing [F6] in the disc manager screen gets you into the Settings menu, which will allow you to set up a new paper type of your own



The 'Paper Types' menu shows the sorts of paper the computer already knows about, ideal starting points for setting up a new one

(don't forget to press [F7]), you want the Settings menu, directly from the Disc manager screen. You don't need to go into printer mode to set up these new types, that's the first thing which gets people into trouble: assuming that to set a new type of paper for the printer, they have to be looking for a printer menu. In fact, all you need to do is press [F6] directly from the disc manager screen.

I mentioned that the printer works at 6 lines to the inch and that's how you work out the figures: measure in inches and multiply by six.

A4 is just over 11 and a half inches high and about 8 and 1/3 inches wide. If you have a ruler which measures in sixths it makes life easier but in fact it doesn't matter if you're not completely accurate. Err on the smaller side, though, rather than the larger, so that there's no chance of printing off the ends.

The width is calculated the same way, to keep things simple.

The top and bottom gap are fixed for single sheet paper and should be left alone as the printer knows it that its roller cannot hold the paper firmly enough to print on these very top and very bottom lines.

Now press [EXIT] and [ENTER] to go back to the original settings menu, put the cursor on 'New Paper Type' and press [ENTER].

The menu which appears (shown in the screendump at the very top of this page) will be set up for the type of paper you selected when you looked at the paper types, in this case, A4.

The cursor is on the name and the first thing to do is to enter the name of your new type; we'll call this one POSTER. You can make the old name disappear before you start, if you like, by pressing the [-] key.

The first pitfall many people fall into is to press [ENTER] after they have put in the new name. If you do that, you will have a new paper type alright, and your new name will appear on the list of paper types but it will still have the height and width values of the old type. So don't press [ENTER], just use the cursor to move down to the other options.

As we selected a similar type before we started, we don't need to worry about

the single sheet or continuous stationery section, as single sheet is already ticked.

If for any reason this selection is not right, just use your settings keys, the [+] and [-] to make the correct selection.

The next section is the height and width. Measure your paper in inches and multiply by six. Our hypothetical piece works out at height 90 and width 65. When you type in these numbers, you do need to press [ENTER] at the end of the number, as always on menus, to tell the computer you have finished that bit.

For the moment, you should leave the top and bottom gaps alone.

The bottom section is the paper sensor and here is another good reason for selecting a similar type before you start, as thinking about whether this should be ticked or not tends to cause excessive brain strain!

For the record, the paper sensor senses when a sheet of paper is nearing the end. It needs to be operating when you use continuous paper so that if the paper runs out half way through the print run, the printer will not keep going, printing onto the platen. However, the sensor has to be ignored if you're using single sheets, or the printer would keep stopping before the end of the sheet and telling you the paper is finished.

Continuous paper does not have the tick and so does not ignore the sensor.

Question:

Can you please remind me – and I'm sure I'm not the only reader who needs this sort of help! – exactly what all the items on the list of word processing codes actually do?

Answer:

Certainly. Here's a list of them all, complete with key strokes to access them the quick way, working from top to bottom of the code menu (shown on the other side of this page). You might like to keep this list handy until you get used to the key stroke method.

Bold [+b]

Makes text bolder, for emphasis.

CEntre [+ce]

Centres text between the margins. You don't need to use the [-] key to stop this, it cancels automatically when a [RETURN] is encountered.

CR extra [+er]

Carriage return extra. Some people prefer to indent their paragraphs instead of leaving a space. They often like a little extra gap, but not a whole space, perhaps just an extra half line at the end of each paragraph. By setting the carriage return extra to half, they will get that extra half line whenever they press [RETURN].

This is one of the codes that needs a number after it; once you've pressed [+], type either 1 1/2, 1, or 1/2 – or 0 if you do not want any space left. Remember you will have to use [ENTER] when you have finished typing in the number.

Single sheet paper does have the tick and does ignore the sensor. It's a lot simpler to set the paper type to a similar type before you start! You can always check whether this should be ticked or not by looking at a paper type already set up and seeing if the tick is present or not.

When the menu is completed, so it looks like the second screendump on the facing page, move to 'Create new Paper Type' and press [ENTER]. Do not just press [EXIT] or [CANCEL].

A message will appear on the screen; select 'Write SETTINGS.STD' from this and press [ENTER], as shown in the illustration on the right. Now you can see why we put the Start of Day disc in before we started, it simplifies matters later. With the Start of Day disc in Drive A: we need only press [ENTER] and the new paper type will be written to the 'Settings' file on your Start of Day disc.

If you press [F6] now and select paper types, your new paper type will be on the list, as it will also be if you go into printer mode (either press [PTR] or load paper) and press [F3] for paper.

The new paper type will be available in future as long as you start the machine with that Start of Day disc. If for any reason you make a new Start of Day disc from your master disc, your new paper type will not be present, you will have to set the whole thing up again.

Double [+d]

Sometimes people think this is for 'double width pitch', but it is actually short for 'double strike'. It's really the same as bold, but has a slightly different effect depending whether you are using draft or high quality print. The printer will adjust itself automatically, so don't worry about it.

Italic [+i]

Hopefully self explanatory!

Justify [+j]

Right justifies the text from the current line, where the text was previously unjustified. This simply means that the text is organised in such a way that there will be a straight edge of text down the right hand margin as well as the left. You can also get the reverse: if your text is set to 'justified', you can cancel it by typing [-j].

Keep [+k]

Allows you to tell the computer to keep certain lines together at the top or bottom of the page. I have found it is usually simpler, though, to let the text do what it likes and go through the whole thing later putting in page breaks where I want them. This is another of those selections where a number is necessary.

LayoutT [+lt]

Allows you to call up a layout from your stock layouts simply by entering the number of that layout – assuming that you can remember it! Again, you will have to type in a number (the number of the layout required), so you will also need [ENTER] at the end.

Remember, this is only half the story. To use your new paper type properly, you will have to set up a template for that size of paper as well, with the margins in the right places and your new paper type selected on the paper menu in the Document Setup. It is no good just typing something using a template which was set up for A4 (and if you don't tell the machine different, that's probably what you will get) selecting your new paper type at the printing stage and expecting the



The display which you use to write the new settings to a Start of Day disc

computer to somehow know where the margins and page breaks should be for that type of paper.

This makes sense. After all, you are the one who knows where a section of text begins and whether it should be on a new page, while the computer does not – you cannot expect it to guess!

Line Pitch [+lp]

Lets you change the line pitch, which is the number of lines printed per inch. Experiment with this before using it in earnest as things don't always print out the way you expect!

Line Spacing [+ls]

You can change the line spacing, which is the number of lines left blank between each printed line, by using this plus a number. Remember you can use a half value. A line spacing of 1 and a half is particularly suitable for letters, for instance, while line spacing 2, or 'double spacing' is normally used for reports, theses and so on.

Last Line [+ll]

Means 'make this line the last line on the page'. This is different from putting in an 'End Page Here' sign, as it allows other lines to be put in front of the line marked 'Last Line' as long as there is room for them.

Last Page Number [+lpn]

LocoScript allows you to number the pages of an important or confidential document as page 8 of 10, for instance, so that it is obvious if a page is missing. You have to tell the program what that last number should be, as you may have kept a document in different parts. So, you tell the program what the last page number is and it will print the page numbers appropriately. You would normally do this in a header or footer.

Mail [+m]

Indicates the beginning of a mail merge command. [-m] indicates the end.

Question:

I am unable to indent paragraphs correctly – the only way I can present a list of items of more than one line is by pressing [RETURN] at the end of each line, and then putting in a TAB to move the next line across into the correct position. This is awkward because one never knows when the line will end, and it means that you cannot make use of right justification on text presented in this way. Is there any alternative?

Answer:

Yes – you should be using what is called an 'Indent Tab' rather than a simple Tab. An Indent Tab is obtained by pressing the [ALT] and [TAB] keys simultaneously, and has a similar effect to an ordinary Tab, but works for whole paragraphs instead of just single lines. Indent Tabs will also allow you to make normal use of word wrap and right justification.

**Pitch [+p]**

Enters the pitch you want. This is measured in characters per inch, so pitch 12 is 12 characters per inch. Here is a summary of the available pitches:

Pitch 17 [+p17]

This is 17 characters to the inch.

Pitch 17 D [+p17d]

Double width 17 pitch characters.

Pitch 15 [+p15]

15 characters to the inch, pitch 15.



Just some of the LocoScript codes you can easily access with the appropriate keys

Pitch 15 D [+p15d]

Double width so about 7.5 per inch.

Pitch 12 [+p12]

12 characters to the inch, often the default on the 8000 series machines.

Pitch 12 D [+p12d]

Double width 12 pitch characters – so around 6 per inch.

Pitch 10 [+p10]

10 characters per inch, the default for series 9000 machines.

Pitch 10 D [+p10d]

The largest (standard) size available.

Page Number [+pn]

Tells the program to number the pages, usually – but not necessarily – in a header or footer. Remember you can also set the first page number to whatever you wish and the pages will be numbered consecutively from there, so that you can split large reports or books into smaller documents and still have the correct page numbering.

Question:

I keep running out of space on my discs, although there seems to be very little on them. When I try to save my work, I keep getting a 'Disc Full' message. What am I doing wrong?

Answer:

This is a surprisingly common problem, caused by a misunderstanding of how to prepare discs for working with. When people start using a PCW the first thing they are told to do is to prepare a copy of their master disc to use. Many people then discover that if they buy new blank discs and try to use them, they don't work, and as they are eager to press on and haven't yet discovered how to format new discs, they continue to prepare discs by making further copies of their original Master disc.

ReVerse [+rv]

Has no effect on the printout, but prints inverted characters on the screen. Useful to draw your attention to things which have to be changed, for instance in form letters.

Right Align [+ra]

Called Right Justify in LocoScript 1, prints the text from the right hand margin instead of the left. It is useful for dates and addresses.

SIC [+sc]

Marks a word as spelled correctly so it is ignored by the spell checker. Most useful in front of names which you know the spell checker will query.

Subscript [+sb]

Prints half size characters dropped half a line, particularly useful for scientific or mathematical phrases, such as H₂O, where the 2 would be in subscript: H [+sb 2] [+sb 0].

On a 9512 daisy wheel printer, this will be printed below the usual line level, but at full, not half, size.

SuperScript [+sp]

As above, but the character is printed above the line instead of below it. Thus 789 to the power 5 would become 789 [+sp 5] [-sp]. Again, the 9512 will approximate this effect.

UnderLine [+ul]

Underlines everything, including spaces between words.

Word underline [+w]

Underlines only the letters themselves, not the spaces in between. Cancelling is a little confusing. For some reason you use, not [-w], but [-ul].

Unit [+ut]

Puts a marker in the text which you can then jump to by using the [UNIT] key. Useful if you are using Find and Exchange and wish to return to where you started after the routine is complete.

They delete the files they see on the disc and can't understand why they still seem to have restricted room to store their work.

If you look at the files from a disc prepared from a Master Disc, at first glance, it does look as if there's plenty of room, as you can only see a small number of files. However, if you then press [F8], select 'Show hidden files' and press [+][ENTER], you will suddenly see a whole list of new 'hidden' files.

But just looking at the number of files on the screen doesn't actually tell you anything about how much room, or lack of it, there is on a disc. You need to look in the first of the three boxes above the lists of files.

These boxes show you the status of the three available drives, although you may only have two. Drive B: showing 'Not Fitted', Drive M: is the internal memory of the machine but works the

hard space [+][SPACE]

A hard space will not let the line break at that point. Particularly useful for double barrelled names and initials.

hard hyphen [+]-

(This is the keyboard hyphen on the numbers line, not the settings [-] key.) Has much the same effect as above, only with hyphens. Use it for double barrelled names that you do not want separated.

In general, all these effects are ended by using [-] code, but some cancel themselves when [RETURN] is pressed, for instance Right Align and CCentre. Also, remember that word underline is cancelled by [-ul], not [-w].

Those of you who use daisy wheel printers should note that some of these effects are available, some aren't, and some are approximated. For instance, italic printing is out, but bold is possible. Double width printing will simply space out the letters, rather than doubling their size. This can be effective – for instance, you should try [+p17d].

Pitch 12 will close up your daisywheel characters, but not to the extent that they are illegible; PS pitch is also good for certain effects. Some people use it, for instance, for quotes in a book or thesis. Of course, if you can get hold of a wheel designed to be used at a different pitch (for instance, Mini Gothic 15) you can use that with impunity at the pitch it was intended for.

Similarly, if you don't have LocoSpell or LocoMail, then you will notice that some of these options are not available to you.

If you are in any doubt about which keys you should be pressing to get a particular effect, just press the [+]-key, and the full list will appear. You can then cursor down to the option that you want and select it with the [RETURN] key as usual.

Finally, don't be scared to press [+]: if you do press it and decide that you don't want to use any of the options, you can always press [CAN] to get rid of it!

same way. Underneath the name of each Drive is a summary of the disc. This tells you how much space has been used, and, more importantly, how much is free.

A lot of space can be used up by hidden files. If you look at the file list directly below the Drive summary, the Drive A: group 0 list at the bottom shows that there are a number of hidden files, which are the cause of the problem.

If you just delete all the displayed files, your disc is still well filled with the hidden ones. To empty the disc you have to delete the hidden files as well, by showing them, [F8] and then erasing them one by one with [F3].

The real answer is to format a blank disc rather than copying the master. Investigate the [F2] menu if you are using LocoScript 2, or the Diskit utility in CP/M if you're using LocoScript 1. Both will give you the option 'Format Disc' as well as copying.

Question:

I'd like to be able to gather together all of the separate letters and reports which I have saved in group 0 into one big reference document. I know all about using 'Insert Text' in LocoScript, but since I have a lot of documents to collate in this way, I was wondering if there was any way of getting it done automatically?

Answer:

As far as we're aware, there isn't any easy way of doing this, apart from the one you've already discovered. But then again, even if you could do it automatically, this could cause more problems than it solves – large LocoScript files (of 20k or more) are notoriously difficult to handle, both in terms of the time it takes to move through them, and the amount of disc space that they will tend to take up.



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All Wrapped Up

Karen Donaghay shows you how to use your LocoFile skills to organise your Christmas shopping

All change!

Why not do adapt your current address database, to give you your Christmas database? All you need to do is make a copy of it and delete the unwanted fields. Then you can add the new fields and save yourself a lot of typing.

Christmas is always a busy time of year: all that planning to do, presents to buy and cards to send. Wouldn't it be nice if, just for once, you could avoid the panic.

Luckily, we have now reached the stage in our LocoFile series where we can start to piece together several techniques, to make a rather sophisticated Christmas database. Not only will it get you organised, but it will also provide a useful recap on some of the trickier aspects of the LocoFile program. This month, we set up a database that will help you to buy presents and cards and ensure that you put them in the post-box in good time.

TIP OF THE MONTH

You may have noticed, when we printed our list of places and presents, that this was a rather time-consuming process. The trouble is that LocoFile only allows you three choices: to print all of the records, one record or to print just changed records.

There is, however, a little trick that can allow you to print several records at the same time.

Put a small box in the top corner of the database. Call it print and leave it empty. When it comes to printing time

you should load your database afresh, and simply put a P in the box of every record you want to be printed. Then you choose the option to print each changed record. You can get a printout of each marked record.

The next time around, of course, some records that you want to print may already have a P in the box.

If this is the case, you should simply remove the P rather than adding one: it is the actual change that is significant, not the value.

THINK ABOUT IT!

Rule number one, which we have stressed throughout the series, is always, always think about what you need - before you start. It may be a bit reminiscent of your school days - for those who remember essay plans - but that can't be helped!

Anyway, that's the lecture over. Now let's get planning.

The most important question is, what information do we need? Well, if it's a purchasing database, the obvious thing we need to know is whether we have bought a card and a present for each person on the list.

Of course, not everyone will get a present, unless you happen to be a rather generous soul, so we will allow for this within the program. Once you have got the card and maybe a present as well, you have to send them. We have included a separate field that you can mark, once the package has actually dropped into the postbox.

That brings us neatly to last-posting dates. Sending a parcel to long-lost relations in Australia takes a little longer than sending one to the next town so, if

this is an issue for you, put in a field for last-posting dues as well.

However the first problem isn't sending the parcels: it is the shopping trips. To make the most of each shopping expedition, we have included a shopping venue for each present. This will save you from the annoyance of having to go back to the same shop twice.

And that's basically all we need. These fields can be positioned on the 'page' by pressing [f1] and choosing Database set-up.

Then you can copy our layout shown in the first screenshot. Note that the fields for Done and Sent are only one character wide. You may also notice that the page is bigger than the standard size.

To achieve this, press [f5] for the card menu and change the Card height to 18 and the Card width to 80.



Setting up the file

FILLING IT IN

Our example shows a typical entry. The suggestion itself is rather vague but the location is specific. To buy a hat, this field suggests going to a certain rather

famous shop in London. The city should always come first, followed by an area and - if you know it - the shop's name.

The other important fields are Done and Sent. Done represents buying the present. If you have not yet bought the present, it should be filled in with an N for no. When you have bought the present, this is changed to Y for yes.

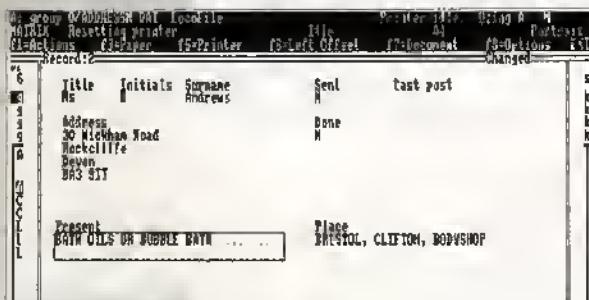
However, if you are not buying a present at all, but just a card, it should be filled in with an X because the field does not really have any meaning.

The other field called Sent represents the posting part. It is used for both presents and cards - because although it is probably a little over

cautious to check on the purchase of each and every card, you do need to check whether you have sent one to each person.

To begin with this field is also N for no. Whenever you actually post something - either just a card, or a present plus a card - the Sent field is filled in with a Y.

One useful tip for filling in the present suggestions, is this: if you really cannot think of a present for someone, then just fill in a suitable area to start looking, until a more specific idea occurs to you. Don't use it as an excuse to procrastinate too much though! You don't want that Christmas Eve rush!



A typical record in the database

SHOPPING

Let's imagine that you are planning a shopping trip in London. What you would like to know is everything that you need to buy while you are there and the areas that you need to go to. In other words you want to order your files, firstly by location (the Place field) and secondly, by the field Done. The latter is needed so that you only print out or look at those records where you still need to buy a present. (Any records where the Done field contains a Y can be ignored.)

First, you need to insert a new index. This means going back into the Datafile set-up - just press [F1] - and creating an index. To do this you move your cursor over the Place field and press [F2][ENTER]. Give the following values to your new index, when prompted. The name of the index is Shopping, and the main key is Place. The sub key is going is done. Finally, choose to save the index and get back to the main datafile, by pressing [EXIT].

Of course, if you want to use this index, you have to ensure that it is selected. It can be chosen, by pressing [F2] for Index and pressing [-] next to Shopping. What this will actually do is organise your entire database into three sections. Those that have N in the field Done are first, whereas those that have Y are last. Those marked X are in between. These sections are themselves put into alphabetical order of location.

BATH OILS OR BUBBLE BATH BRISTOL, CLIFTON, BODYSHOP
SOMETHING FOR NEW HOUSE BRISTOL, CLIFTON, HABITAT

The shopping list for Clifton in Bristol

So to find the list of those shops in London you need to check out, all you need to do is press [F5] Goto.

Type in London and you will jump to the first London value, in other word it is in the first section of the list. All of the London values will be arranged in order so you merely have to press [PAGE] to flick through all of the values you need.

The same principle can be applied to areas as well. For instance, if the trip was to a certain area in Bristol, such as Clifton, then you can simply use the Goto command and enter Bristol, Clifton and then flicks through the relevant records in the same way.

To print out a list you need to use the Print Extract features. The two fields you want to print out are Present and Place, and these take up two lines.

Unfortunately, LocoFile has a rather primitive tendency: it insists on printing each record on one sheet of paper. To get round this you need to pretend that you are using very short paper: 3 lines should do the trick.

First, we want to set up a new paper type in LocoScript. This is done from the Disc Management Screen by pressing [F6] Settings and then choosing New Paper Type. Overwrite those given with your own values. Call it List and choose continuous stationary. There should be no tick beside the option to Ignore Paper Sensor and the Height is changed to three lines with a top gap of 1 line and no bottom gap. Finally, save the paper by scrolling down to Create new Paper Type. Then choose the option to Write SETTINGS.STD put in your Start of Day disc and you will have a copy saved on to your LocoFile disc.

Now you need to print out extracts. This is simple stuff. Get to the first record that you are interested in, and choose the printing menu - [F4]. Choose to print the current record. Then you want to highlight the option Extract, and tick only the fields Present and Place. Then scroll down to the Print option and press [ENTER]. You can then move on to the next record using [PAGE] and repeat the process all over again.

Label it

Another potential use for your Christmas database is to provide you with labels. The hardest part is defining a new paper type, which is described in this tutorial. Then you can print out all your labels in one fell swoop and just use them as you need them.

LAST-MINUTE CHECKS



Setting up the progress Index

As it gets closer and closer to Christmas, you might want to do a quick check to ensure that no one has been forgotten. Or, you might just want to see how things are getting along.

This means setting up a progress index, and this involves the same process as that to set up the shopping index. This time, the main key for the index is the field Sent and the sub key is the field Done.

Go into the Database set-up and add this index. Then go back to the datafile and select the new index. You will soon see, by examining your records, that the new index will sort your database into all the possible combinations of the two fields. Once again, what you need to do is jump to the section that you need by using Goto, and then you can [PAGE] through all of the relevant records. In other words, to find out which



Using the progress Index

presents have been purchased but not sent, enter N (for Sent) and Y (for Done) as shown in our screenshot.

Or to find out which ones still need to be brought enter N for Done and N for

Sent. To find out which cards have not been sent, enter N for Sent and X for Done. To simply find out what still needs to be sent, just enter N for Sent and so on.

Gifted!

Stuck for a gift idea this Christmas? Well why not introduce a PCW-ing friend to LocoFile as well? LocoFile costs £34.95 (excluding VAT) and is available from Loenmotive Software at Dorking Business Park, Dorking, Surrey RH4 1YL, telephone (0306) 740606.

THE LAST WORD

As ever, this example can be moulded to fit your own needs. There are lots of things to organise at Christmas: what about the mountains of food and drink that laden your fridge? Or those silly things that get forgotten, like the chocolate treats to hang on the tree? The basic traditions of the season - the turkey, the mince pies, the mistletoe - are almost as unchanging as the seasons themselves and this makes them ideal to put into a database.

Each item can be saved along with a date (you wouldn't want to buy fresh turkey too far in advance, for example) and a particular shop that you have in mind. Then you can cross items off your list as you buy them, simply by marking them. This allows you to compile lists, before you go shopping. If you want to be even more clever, you can set up LocoMail routines that will let you print out beautifully compiled lists, with headings and other niceties.

Over to You!

This page is not written by us - it is written by you. The very best in LocoScript advice from people who use their PCWs every day

Toeing the Underline

In a recent issue the question of double underlining in LocoScript 2 was raised.

Although this has been answered in a number of ways in the past, the following solution has never been put forward, as far as I'm aware:

The first 'line' of the underlining is the standard [+JUL...{-JUL], the second

THE HEADLINES TONIGHT



By adding a second line at half line spacing, you can get all your captions underlined!

'line' being the long 'dash', [ALT] - , at half line spacing, which you can get with [+JLS] [HALF], repeated as often as needed, and then returning to normal line spacing with [-JLS].

If you wish the two lines to be slightly more widely spaced, you can change temporarily from line pitch 6 to line pitch 5, after [-JUL], as follows: [+JLP 5 [+JLS [HALF][RETURN]], and after you've added the line, end with [-JLP [-JLS].

The whole procedure can be saved as a standard phrase and used as required.

Peter Kyne
Herne Bay, Kent

Quick address

I have the 9512 in the office where I work. This is a tip which might be of use to others who type mainly letters.

First of all, when I type a letter, I always put the date into block 9 (not 0 as I use this for LocoFile). Then, when the letter is finished, I go back to the beginning, type [PARA][PARA] then [COPY][PARA][COPY] 1. This puts the address into block 1. This is because the addresses on my letters are always in the third paragraph - other readers will have to adjust the number of times they type [PARA] to reach the part of the letter that needs to be saved.

I now press [F7] and choose 'Just forwards from here'. This spellchecks the letter without the address.

Having [EXIT]ed and printed the letter, I then come to the envelope. I

have a LocoMail file called ENVELOPE.FIL, which contains: [RETURN][RETURN][RETURN][RETURN] [+J M ?; Address [-J M.

I now place the bar over ENVELOPE.FIL, press F1[ENTER], PASTE 1. The address saved in block 1 shifts into the envelope file. All you need to do is press [ENTER], then P [ENTER], put your envelope in the printer, and away you go.

This ensures that the address is the same on the envelope as in the letter.

Gillian Proudfoot
Porchfield, Isle of Wight

Missing the post script

If you print a letter and realise that you have forgotten a postscript, Edit the document, use [SHIFT]+[DOC] to get to the end of the letter, and note the number of the last line of text.

Now use [ALT]+[RETURN] to start a new page, and use [RETURN] to move down to the line equivalent to the last line of text in the document, and then a few more. Type in your p.s. text. When you have finished, [EXIT], select 'Save and Print' and choose to print 'Part of document' when asked. Select to print 'From' and 'To' the page you have just typed (it will be the last page number that is shown for the document).

Now put the last printed page of your letter into the printer, and print - the postscript will magically appear in the correct place!

Elaine Bullard
Kirkwall, Orkney

A short spell

I wrote this letter on drive M: without having first taken out my Start of Day disc from drive A:. This meant that there was a copy of LOCOSPEL.DCT on the M: drive and another on the disc in A: drive. When I spellchecked it with LocoSpell it used the dictionary on the disc rather than the dictionary on the M: drive. This takes a great deal longer, (approx 2 mins 45 secs for this letter using the A: drive dictionary, and 57 seconds using the M: drive one).

My tip, then: remember to take the Start of Day disc out!

Andrew Hill
London E8

Half a carriage

After the date and addressee's address at the top of a letter page, I like to go into half CR to make the paragraphing neater.

A foolproof way of doing this is automatically is to put up the codes on screen (use [F8] and set the tick next to 'Codes') and type Dear [+JCR [HALF] [ENTER] [SPACE], then cursor back to the beginning, press [COPY][EOL] [COPY] G, thus saving the phrase under 'G' for Greeting. You can, of course, save it wherever you like, perhaps under 'D' for Dear or something.

After the address on your letter, now you can leave a line or two and type [PASTE] G. You can then type your correspondent's name, and whenever you press [RETURN] afterwards the computer will leave one and a half lines between paragraphs.

Update the PHRASES.STD on your Start of Day disc, of course, to make available every time you write a letter.

J Woods
West Norwood, London

Going Greek

Has your copy of LocoScript 2 got a bug in it? Does it sometimes happen that you are typing away quite happily, and then, all of a sudden, you're no longer typing English characters, but rather things that look like Greek or Russian, or some other sort of symbols?

Hitting all the keys on the keyboard, and selecting every menu doesn't seem to help? All you can do is turn off the computer and start all over again?

Well, you're wrong! It's not a bug, it is a part of LocoScript that is intended to be there.

Do you remember what you were doing before that gobbledegook appeared? You were over near the [ALT] key, weren't you, and then you went near the function keys.

I know that, because after much frustration I found out that [ALT]+[F3] turns on the Greek characters, [ALT]+[F5] turns on the Cyrillic (Russian) characters, and [ALT]+[F7] turns on all manner of mathematical symbols. [ALT]+[F1] is for normal text.

So next time it's all Greek to you, try pressing [ALT]+[F1].

R Hedde
Scunthorpe

Your turn

You can keep some of the people happy some of the time, but the only way to keep all the people happy all the time is to share your LocoScript tips with them.

And the only way that you're going to do that is to send them in to us for the 'Over to You' page. However simple your tip seems to you, we want to hear about it - because if it helps you, it will help others, too.

So get writing to us at 'Over to You', 8000 Plus, 30 Monmouth St., BATH BA1 2BW.

Guar - make somebody happy with a LocoScript tip!

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IF YOU DON'T SEE IT - ASK.



The Good Book

In the beginning were the words. Then came the database. Bible Society Software's newest program claims to be an index to the complete Bible on disc. Martin Le Poidevin investigates

One wonders what Ezekiel would have made of it all. Would the man who saw the vision of 'wheels within wheels' have been surprised if you told him that two and a half thousand years after his death, people would still be studying his visions using computers, the direct descendants of machines which quite literally had 'wheels within wheels'?

The Bible is the most studied book on earth. Rightly or wrongly, every generation discovers something new about its message and finds a new way of approaching its analysis.

In the thirteenth century, the new thing was Hugo of St Charo's 'Concordance', an index of references to all the important words in the Bible. The Concordance quickly became one of the main means of biblical scholarship - the standard English concordance is still basically the same as the one compiled by Alexander Cruden in 1737. It is the bible of the Bible.

The end of the twentieth century has seen the invention of yet another tool to use on the Bible. Theologians and scholars have come up with some very complicated computer programs to analyse its style and content, but, since there is nothing new under the sun, much of this is a re-working of older ideas.

And that is what Bibliotec Wordkey is; a new version of the concordance concept. Old wine in new skins, you may think. Certainly, to make the transition from book to disc worthwhile, the computer version is going to have to offer something new.

Le mot juste

For a start, the computer is fast. Even in searching for a common word - such as 'Angel' - the computer will probably have come up with its information quicker than it would take you to flick to the general 'ANG' region of a concordance, let alone find the entry for the word itself.

Secondly, the computer is very good at summarising. You are immediately told the number of times that your word appears in the Bible, and how often it appears in each individual book. You can also very quickly ascertain the chapter and verse of each mention of the word.

And then the computer has a memory. No more scraps of paper with '1 Pet 3:22' enigmatically scrawled all

over them. Now you can store the results of one search while you go off and look for another word. There is room for up to eight such stores. Then you can do matches - look for verses where two or more words occur - store the results, and then make comparisons between the contents of various stores.

The next step would be to cut out paperwork completely, and file everything away on disc. Wordkey can store results away as an ASCII file which can then be introduced into your favourite word processor (you'll have to use the 'Insert Text' option if you use LocoScript, because the files aren't immediately compatible), or else you can save them as 'System files' to be used again by Wordkey.

You'll use this option a lot if you have a specific area of research in mind - if you are writing a thesis on a particular character, or if you preach a lot about one subject. If you've not yet achieved the completely paper-free office, you can also get a print out of the information.

Bible bashing

However, one piece of written equipment you will not be able to abandon altogether will be the Bible itself. Unlike its predecessor from the Bible Society Software stables, Bibliotec (the New Testament on disc), and unlike Cruden's Concordance, Wordkey does not actually contain any words in its references.

Cruden does at least put the word in question into context; if you are looking for a specific quote, you can tell at a glance whether you have found it or not.

Wordkey can't do this. One disc is simply not enough for the whole of the Bible (there is a PC version of the Bible on disc - it takes up 8 floppies and requires a hard disc for installation). So it is left up to you to find out what each reference says, and whether it is what you are looking for.

Of course, if you are after a particular quote, and can remember something of its context (you know it's got 'beginning', 'God' and 'created' in it), you can initiate a search which looks for more than the one word, and so cut out some of the looking up.

But that assumes that you know what words you are looking for. There are many versions of the Bible in English, and any project making use of the Bible must make a fundamental decision at the

outset - which translation to use. The 'traditional' version - and the one which provides many of the Biblical quotes still in current usage - is the 1611 King James's version. Wordkey, though, has decided to go for something more modern, the 'Good News Bible', known in America as 'The Bible in Today's English'. This will be a boon for some, a disadvantage for others (including, presumably, the elderly spinster who couldn't see why people bothered with all these Greek and Hebrew translations

How much?

Bibliotec Wordkey is available now from the Bible Society for £49.95 (inc VAT). Their address is: Bible Society, Stunhill Green, Westlea, Swindon, SN5 7DG (0793) 513713.



Wordkey's opening screen is clear and concise. Options can be chosen both by keystroking and by cursor and [RETURN] actions, as in LocoScript



When you have run a search, the upper part of the screen records the number of references within books, the lower part gives the references themselves

when 'the original King James' was good enough for her and anybody else).

The Wordkey manual attempts to smooth over this difficulty by suggesting that if a word you are looking for can't be found, you should try a modern equivalent. But no amount of looking for synonyms of the word 'want' in 'The Lord is my shepherd, I shall not want'

Hints & Tips

When you've finished using Wordkey, you must always make quite sure that you leave the program through the 'Exit from program' option. Wordkey stores several pieces of information on disc when you leave the program; if it is not allowed to do this, and if it is not allowed to close some of the open files, it could easily corrupt the disc. For this reason, always make a working copy of the original master disc.

(the King James's version) is going to come up with the Good News version: 'The Lord is my Shepherd. I have everything I need'.

Naming names

There is little the program or its programmers can do about this - the Good News Bible has been shown to be the most popular translation among 'churchoffers', and in a program dealing with the Bible, it is their views which must be respected!

Furthermore, Wordkey does give some devices for dealing with such problems. Greek and Hebrew, of course, use different alphabets to ours. That leads to problems of transliteration - how to convert the sounds of the original language into English. In general, you find that the consonants are fine - it's the vowels that can get altered.

To deal with this, Wordkey allows 'wildcard templates' - where you can replace any of the letters of a name with

fast and smooth, and screen information clear and well-displayed.

Each menu also indicates where to turn to in the manual should you be unsure about what to do next - a simple trick which some other programs would do well to take note of.

The first thing you are likely to want to do from the main menu is to 'Find a GNB (Good News Bible) keyword'. The 'keyword' is the word you want the computer to search for. Select the option by pressing F (the menu is the box at the bottom left of the screen), and you will see that the information box alongside the menu box, as well as the menu box itself, has changed.

Obey the instructions, and type in your 'keyword'. Now the upper part of the screen comes into play. Listed here are all the books of the Bible. When the computer has scanned all the references to the word, it will display alongside each book the number of references found within that book; in addition,

LOVE+HATE						
Gen 37.4	Ps 119.113	Ecc 9.1	Lk 16.13			
Lev 19.18		119.163	9.6	Jn	12.25	
Judg 14.16	Prov 8.36	Is 61.8				15.19
2Sam 13.15	10.12	Hos 9.15	Rom 9.13			
	19.6	11.20	Amos 5.15			12.9
Ps 45.7	12.1	Mic 3.2	Heb 1.9			
97.10	15.9	Mt 5.43	1Jn 4.20			
109.5	15.17	6.24				
109.17	Ecc 3.8	Lk 6.27				

You can save information to disc, or have it printed out. This is the format used for both - four columns of abbreviations and numbers, in standard Biblical form.

a question mark if you are unsure about its spelling. The classic case would be 'Eli?abet?' - making sure that all possible combinations of the relevant letters are taken into account.

Another wildcard feature involves names. The name 'Joseph', for instance, appears for nine different people throughout the Bible. Wordkey (in another attempt to speed your search) distinguishes between all these Josephs, and offers you a menu at which you can choose exactly which Joseph you are interested in. Other common words are also 'sub-divided' in this way.

And finally on this tack, Wordkey treats every entry as a 'template'. For instance, if you look up 'sing', Wordkey will find 'sing', 'singing', 'sings', 'sang', 'sung' and so on.

Easy to use

As a concordance, then, Wordkey has great potential. But is it any good as a program? After all, it's no good having all that information on the disc if you can't access it because the program is too complicated or too temperamental.

More good news here: Wordkey is very user friendly. Simply loaded from CP/M by typing **WORDKEY** [RETURN] (8512 users will have to remember to use their B: drive), the whole program is driven by menus. To select an option from the menu, you can either use cursors and [ENTER] (as in LocoScript) or else keystrokes. Either way, the movement between menus is

along the top you will find totals: the total number of references in the Old Testament, the total in the New Testament, and the total in the Bible.

If the number of references does not exceed 48, the box at the bottom right will display all the references automatically. But if the number is greater than 48, you will have to ask specifically for the references (using the 'List References' option), and then select the book you are interested in.

Alternatively, you could go back to the main menu, select 'Change', and use the 'Start book' and 'End book' options to narrow down the size of your search - perhaps limiting it only to the New Testament, or the Old, or to a few consecutive books within either.

Storing up knowledge

It is the 'matching' options, though, that will prove most useful to anyone serious about searching the Bible. There are three sorts of 'match' that Wordkey is capable of: it can look for verses which contain both word 1 and word 2; it can look for verses with either word 1 or word 2 or both, or it can look for verses with word 1 but not word 2.

Although these look complicated when you first come across them, they are in fact very flexible, and once you get used to them, very powerful. You can also extend the range of the match from 1 verse to up to a maximum of nine consecutive verses. Setting up a match is as simple as anything else in Wordkey.

Decide which two words you want to match, and carry out the search for the first word ('Find a GNB keyword'). Select 'Match another word', and when prompted, give the second word. Finally, choose the sort of search that you want - the new menu helps you get your mind round the possibilities by using words themselves, such as 'Love NOT Hate' rather than 'Word 1 NOT Word 2'.

You can load a list of references into one of the eight memory stores at any time, and then use these as part of a 'match' sequence. And since you can store the results of previous matches in these stores, you could easily find yourself matching the results of 'Love NOT Hate' with 'War OR Peace'.

The contents of these memory stores can also be saved to disc, either as ASCII files (for incorporation into other programs) or as system files (which Wordkey can use again).

The ASCII files allow you to attach a descriptive comment to your list of references. These come in a four-column layout (it takes the computer some time to work this out) which, although it is not ideal when inserted into a word processor document, does look good when printed out on paper. It should be perfectly possible to incorporate these ASCII files into a database as well as a word processor.

Jargon not busted

There are a few minor quibbles. Although it is generally good, the manual does not completely avoid jargon, either religious or computer-orientated. The loading up process takes some time, as does formatting the ASCII and print-out files.

The error messages (like those in Bibliotec itself) take a rather cryptic form which only the Bible Society can understand - apparently so that you can report errors back to them, and they can give a quick diagnosis. A good idea, but given something a little more explicit the more computer-literate users might be able to tackle the problems themselves.

Like Bibliotec, there is also an 'M.COM' utility to clear up a cluttered M: drive. This is often necessary - Wordkey takes up a lot of room, and will not work on 8256 machines, both because it needs a lot of memory, and because it comes on a 720k disc (so expanding your 256's memory will not help). Using it with Fliper on a 512 machine is also unfortunately fraught with danger.

But what quibbles there are are only minor ones. Wordkey is an efficient program, well put together and well presented. Its speed and accuracy make it a healthy rival for the written Concordance's traditional corner of the theology market.

Ezekiel may not quite have envisioned it, and it may not have been at the forefront of St Paul's mind as he wrote Ephesians 6; nevertheless, Wordkey should prove a useful part of any churchgoer's technical armoury.

Wordkey

- Pluses**
- ▲ Fast and efficient
- ▲ Very strong match and compare functions
- ▲ File exporting option makes it compatible with other programs
- ▲ Printer output available

- Minuses**
- ▼ No text included - have to use Bible
- ▼ Only uses Good News Bible words

Ease of use 5/5
Documentation 4/5
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TempDisc 8.2 is a Double Density disk with 133 files (760K) for LocoScript 2 and LocoMail and includes files for Business, Sport or Personal use. It is available on 3, 3 1/2 or 5 1/4 disk and includes Locomail and LocoChar features. All TempDiscs ordered direct are personalised so please include your Christian names. Files on the 8.2 disk include:

* CHRISTMAS: Cards, new envelopes with Christmas designs, bordered greetings, Christmas header, and these Christmas LocoCharacters (also TempDisc 2).



* GENERAL: Lifetime diary (to yr 2100) 3 year calendar agenda, minutes, 5 label choices', envelopes', (inc. New designed 1st Class, AirMail, Private, Personal etc), disk labels, menu, order form, organiser/planner templates, compilations, 23 instant letterheads inc LocoChar double lined boxes.

* FINANCE & FIGUREWORK: Invoices', statement', calculator', spreadsheet layouts', metric converter file', payment advice', annual statement of account, two LocoMail Games.

* WRITERS: Author, script layouts for film, TV and stage and radio. (See also WordDisc for 39,000 word synonymous option).

* LISTS & FORMS: School marking chart weekly diary, Inventory, equipment diary, shipping doc, production schedule, personal file, c.v., will, 9 choices of vertical lined layouts (add your own headings).

* SOCIAL & SPORTS: Star signs, family tree, automatic fixture lists', KO draw and chart', first day cover', tickets', party invitations, league tables, apology for abnormal behaviour at a party, screen-art and d.i.y., new LocoChar Artset Sport Versions of 8.2 and 9 also available.

* LOCOSCRIPT FILES: Template Std with prepared stock layouts, pitch guide, settings, Std with 10 pre-set choices, ingenious use of phrases, Std files.

TempDisc has three versions: SPORT, BUSINESS or PERSONAL each available on One 3 1/2" or Two 5 1/4" disks (they include LocoMail and DataBase (LocoFile) features. Sports versions of TempDisc PC, 8.2 and 9 include automatic FIXTURE LIST COMPILED and PRINTING, Tournament Chart entering, seeding and byes, match scheduling, umpire tickets, league tables all courtesy of LocoMail routines and designed by a Tournament Referee. TT library comprises FoneMail, WordDisc and a choice of TempDisc 8.2, 9 or PC.'

LocoScript 1 TempDisc 1 - double sided Drive A
LocoScript 2 TempDisc 2 - double sided Drive A
LocoScript 2 TempDisc 8.2 (or 8.2 SPORT) Drive B
PCW 9512 TempDisc 9 (or 9 SPORT)
LocoScript PC TempDisc PC - Sport, Personnel or Business
(2 x 5 1/4 or 1 x 3 1/2)
TT Loco Script Library

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SPECIAL TEMPDISC 2 CHRISTMAS EDITION 1991
Double sided Drive A 8256/8512 LocoScript 2, Includes the shown Christmas
Characters plus a greater variety of Christmas Templates with colour printing options.
Plus two games for LocoMail users. See APCW November Review

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TempMate (Design Copyright Sept. 1986)

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Versions for scale pitch 15, 12, 17 or 19 end for Landscape. Place the clear PVC grid over your form or letterhead and correct positions for Margins, Tabulation and Lines are clearly seen. Additional useful wordprocessing information is on the attached backer card. It's so simple it doesn't need further explanation. Reviewers have said:

'like many simple things extremely useful BBC CEEFAX
'Excellent' Comp WAPCW SEPT '87. 'Wonderfully simple idea' Your APCW Jan '87
'Excellent', the best I have seen' APCW Aug '87.

WORD PROCESSING RULER

The Page Boy word processing ruler is a clear PVC ruler which measures characters per inch at 17, 15, 12, 10, 5 (10d), 6 & 7 1/2 and, lines per inch etc., 5, 6, 7 1/2 and 8. It also includes a centimetre line end the '10' line doubles as an inch measure. In total it has 13 options.

WordDisc The author's companion. Script layouts for stage, tv, film and radio. A Thesaurus/synonymous LocoFile of approximately 60000 main words and 330000 alternatives. DD PCW 3, 3 1/2 or 5 1/4 disks. PC 3 1/2 only.

FoneMail A National & International dialling codes and exchanges in LocoFile. Record file with 13 text/extract LocoMail files for labels & lists. 5 games. DD PCW 3, 3 1/2 or 5 1/4 disks. PC 3 1/2 only.

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It's a PCW Gift!

At this time of year, it's always good to receive a special gift from a friend or relative – and it's even better to give that gift! And that is where your PCW can really lend a hand. We show you how to make your own Christmas cards using MicroDesign – plus, how to produce a handy wall-diary using LocoScript. So, get your creative thinking caps on, and let's start planning how to make a truly personal present from you and your PCW!

Have you noticed how Christmas cards are becoming uniformed and that each year, you receive more and more cards that are identical to the other half dozen already draped over the length of cotton you have anchored to the wall with two drawing pins?

When you have torn through the shrink wrapping on the "Jumbo" box of assorted "Best Quality" cards, do you search to find one worthy of sending? How many times have you searched the shops to find a greeting card that contains the exact message that you want to send to someone?

If all that sounds like the opening to a sales pitch, it was! And its purpose was to sell *you* the idea of having a go yourself. If you have MicroDesign2 then what are you waiting for? Your search is over - you can create your own cards bearing any verse you want.

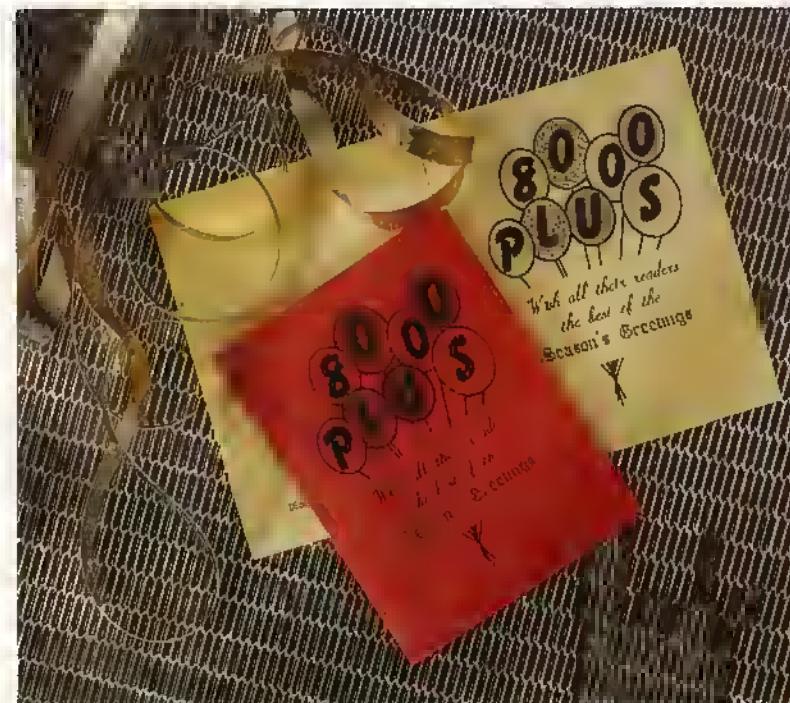
A personal message will mean much more to the recipient than an "off the peg" one, however carefully chosen.

The good news is that designing your own cards is not difficult. All the tools that you need are supplied with the MicroDesign program.

Ways to cheat

If you don't feel artistic enough to create the illustrations and want to make life easier, you can always purchase ready-made clip art, which is offered by several advertisers in this magazine, and then just add the verse later on. There are many many suppliers of clip art, and not just for Christmas images either. In fact, if you check back to the September issue of 8000 Plus, you'll find just some examples of good quality seasonal clip art - plus some idea of the plethora of other images available. Clip art is a cheap and easy way to avoid constructing your own designs.

In this traditional month of stretched overdrafts coupled with the first sightings of next year's Easter eggs, we shall guide you through a couple of ideas to create your own



Christmas cards. All you will need is a PCW, MicroDesign2 and some coloured A4 paper (and not a sign of sticky backed plastic!).

If you really want to push the boat out, try coloured ribbons as well but don't over do it - there are times when black printing on white paper can be just as effective. If you send cards to business colleagues, you can use the opportunity to add or adapt your own company logo to the design. Another idea is to buy "open" cards that contain no message, and print your designs on to paper that can be pasted inside.

And the rest...

But why stop at Christmas cards? Don't forget all the other paraphernalia of the festive season - gift tags, place settings, posters, calendars and so on. All these can quite easily be produced with MicroDesign2.

In the following guide, the mouse instructions have been omitted in the hope of making the text easier to read. Those readers who are fortunate enough to have a mouse should find it easy enough to adapt these instructions to their needs by "clicking" on the appropriate operation instead of using the key presses stated.

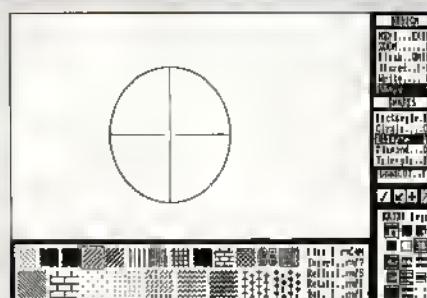
For those not yet in possession of a mouse, you may find that hints dropped in front of loved ones could pay dividends on or around the 25th of the month!

On the subject of mice, don't forget that any kind of freehand drawing that you may want to add to your designs will be almost impossible without one. With MicroDesign2, you can of course plot every pixel one by one by using the cursor keys and the space bar. But this is not a task to be taken on by anyone who wants to produce cards for this Christmas!

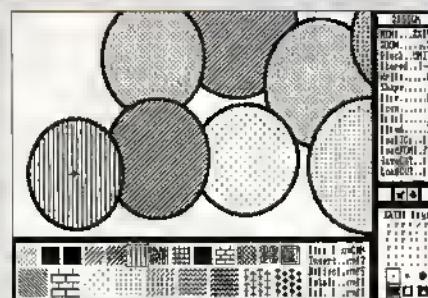
You will need...
For the following step by step guides to making Christmas cards and your planners, you are going to need the following. A copy of MicroDesign2, priced at £62.00 and available from Creative Technology, 10 Park Street, Uttoxeter, Staffs ST14 7AG, telephone (0889) 567160. LocoScript 2, £29.95, Locomotive Software, Dorking Business Park, Dorking, Surrey RH4 1YL, telephone (0306) 740606. The accessories we have shown with the wall planner were bought from Woolworths and Paperchase in Bath.

STEP ONE**THE 8000 PLUS CHRISTMAS CARD**

With MicroDesign loaded, launch the Box operation by pressing [B] and move the outline frame that appears, into the bottom left corner of the Layout page. Press [SPACE] once and the cursor will jump to the upper control point of the frame. Press [DOC/PAGE] and the top right corner will be moved to the centre of the page. Use the up cursor key to drag the corner of the frame to the top of the page. Press [ENTER] and a box will be created half the size of the page. Re-launch the Box, press [SPACE] and then [DOC/PAGE] this time dragging the corner of the frame to the right hand edge of the page. Press [ENTER] and the page will now be divided into four equal parts ready to create our Christmas card design. Before moving on, use the Box operation again, but this time in white ink ([EXTRA]+[DOWN CURSOR]) at full page size, to remove the outer lines.

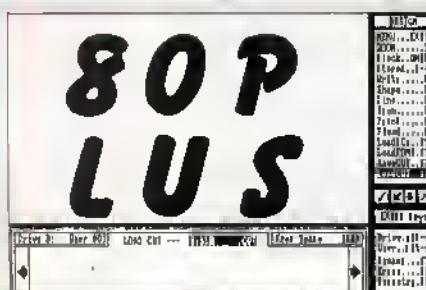
STEP TWO**CREATING THE FIRST BALLOON**

Move to the Design section by pressing [D] and move the frame that appears, to the lower right hand quarter of the page before pressing [ENTER]. To create the actual balloons we use the Shape operation. Launch Shape by pressing [S] and then [E] for ellipse. This operation can be short-cut by pressing [S] and then [E]. Use the [SPACE] and cursor keys to set the ellipse so that it will be large enough for the first character which is the number 8 in our example. Set the Extra Keys menu to opaque ([EXTRA]+[CUT]), pattern fill ([EXTRA]+[UNIT]), solid outline ([EXTRA]+[LINE]), medium thickness ([EXTRA]+[SP.CHK]) and black ink ([EXTRA]+[RELAY]). Move the cursor into the bottom window by pressing [RELAY] and use the cursor keys to select an appropriate fill pattern. Press [ENTER] and the first balloon will appear.

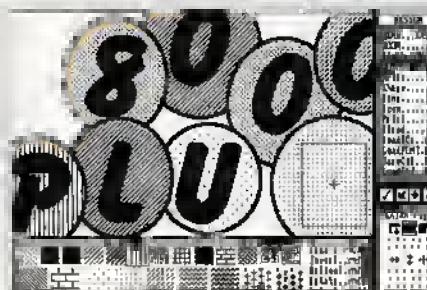
STEP THREE**OVERLAYING THE REMAINING BALLOONS**

Re-launch the Ellipse Shape operation and use the [SPACE] and cursor keys to create an ellipse of a slightly different size to the first. Position this second ellipse so that it overlaps the first by a small amount. This will give depth to the finished design. If you want the "balloons" to appear to be various colours, choose a different icon for the fill pattern this time before pressing [ENTER]. If you are not sure of the effect each fill pattern will have, try each one in turn. That's what the "Undo" function lurking beneath the [WORD/CHAR] key is for! Once you are happy with the appearance of the balloon, move onto the next one.

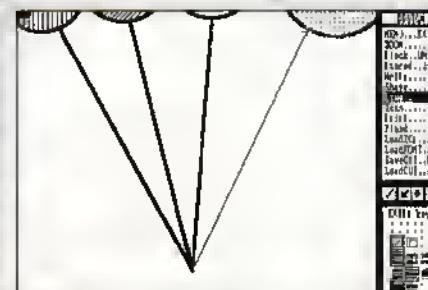
Repeat these operations to create all eight of the balloons that are required for our design. At this stage it may be a good idea to exit to the Layout section and use SaveAREA to save your work so far, just in case of accidents!

STEP FOUR**CREATING THE LARGE CHARACTERS**

The letters used inside the balloons to write "8000 Plus", were from one of Creative Technology's extra fonts discs (XFD3 in fact) and appropriately entitled BALLOO64. You can of course use any of the 25 fonts supplied with MicroDesign if you don't have XFD3 (once again, hints dropped at this time of year to loved ones could help fill your Christmas stocking in the way that you want it to be tilted!). The eight characters that we have used have been loaded as .CUT files into an empty part of the page in the Design section, with a little space between each one. With the standard fonts it is only necessary to use the Write operation, but it may be an idea to use the "Scaling..17" facility and adjust them up to a larger size first. The results will of course be more jagged unless you have the patience and time to use the Zoom operation and edit the pixels to create a smoother appearance.

STEP FIVE**POSITIONING THE CHARACTERS**

To position the previously loaded characters in the balloons, launch the Block operation by pressing [UNIT] and use the [SPACE] and cursor keys to position the frame tightly around the first character. Press [1] and this will store the chosen character in the program's temporary memory by using the "Store...1-4" facility shown in the Block Ops sub menu. Repeat the storing of the next three characters using the numbers 2, 3 and 4. Scroll the Design window using the [SHIFT] and cursor keys to bring the balloons back into view. Call up the "Stored..1-4" operation by pressing [1] and set the Extra keys to transparent mode ([EXTRA]+[COPY]). Use the cursor keys to position the frame inside the first balloon and press [ENTER]. Repeat with the other three stored characters. Scroll the screen back to the other characters and copy them into the last of the balloons. Use Block/Erase to remove the original characters.

STEP SIX**ADDING THE STRINGS...**

The next stage is to add the strings to the balloons. Scroll the Design window so that the bottom of the balloons are just visible at the top of the screen.

Position the cursor at the lower edge of the first balloon and press [L] to launch the Line operation.

Set the Extra Keys to black ink, medium thickness and solid line. With the cursor keys, take the line to the bottom of the window and press [ENTER] (there is no set position for the "strings" to converge, just so long as it is somewhere below the centre of the bunch of balloons).

Repeat this process for the remaining strings. You may find, when adding strings to the upper row of balloons that, depending on how they are positioned, the strings should disappear "behind" the lower row. If this is the case, you will just have to use a bit of judgement as to where each string reappears again.

STEP SEVEN

Wish all their readers
the best

Character Height: 41 Character Width: 113 Character As: 1 Line

...AND THE GREETING

The greeting that we have used for the front of the card was written with the SCRIPT27.MDF and DLDENG23.MDF fonts. Scroll the Design window onto a spare part of the page. Insert your fonts disc, press [F3] and load the SCRIPT27.MDF font. Once the chosen font has loaded, launch the Write operation by pressing [W] and position the cursor somewhere near the top left hand edge of the current window. Type the first line of the greeting and then, with the cursor keys, move the cursor back to the left hand edge and a little way below the line you have just written and type the second line (don't use the [RETURN] key between lines or the window will scroll itself right across to the edge of the complete page). Exit from Write by pressing [EXIT]. As the final line is in a different font, press [F3] and load the DLDENG23.MDF font, re-launch Write again and type the last line of the greeting. [EXIT] when finished.

STEP EIGHT

Wish all their readers
the best of the
Season's Greetings

Character Height: 41 Character Width: 113 Character As: 1 Line

CENTRING THE TEXT

To centre the text, press [UNIT] to launch the Block operation. Use [SPACE] and the cursor keys to position the block around the first line of the greeting. Press [F3] to select "copy" and set the Extra Keys to "copy and move" ([EXTRA]+[LEFT CURSDR]). Press [PAGE] and the block will jump to the middle of the current Design window. Use the cursor keys to re-position the block vertically and press [ENTER]. Repeat for the remaining two lines of text, positioning each line equally spaced down the screen. Exit to the Layout section ([EXIT] then [L]). Use the block operation again by launching with [UNIT], defining the area to be moved with [SPACE] and the cursor keys and then pressing [F3] for "copy". Set the Extra Keys to "copy and move" ([EXTRA]+[LEFT CURSDR]) and "opaque" ([EXTRA]+[CUT]). With the cursor keys, move the block to a position just below the balloons and on top of the strings and press [ENTER].

STEP NINE

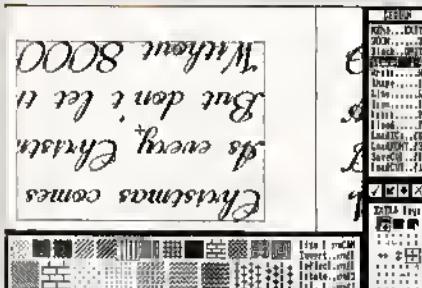


THE PERSONAL MESSAGE

Move to the Editor section ([EXIT]+[E]) and type your chosen message, using [RETURN] to break the lines at the appropriate places. Exit to the Layout section and press [W] to launch the SetWindow operation. Use the [SPACE] and cursor keys to set the window inside the top right quarter of the page. Load the font that you want (we have used SCRIPT27.MDF) and launch Typeset by pressing [T]. Press [F1] to check if the text in the bottom window is marked (white on black). If not, move the cursor to the beginning of the text and press [ALT]+[+], then move the cursor to the end and press [ALT]+[-]. Press [PASTE] and your message will be typeset into the window. If your message will not fit, load a smaller font and try again.

To end up in the correct place on the finished card, the message needs to be turned upside-down and moved to the upper left hand quarter of the page.

STEP TEN

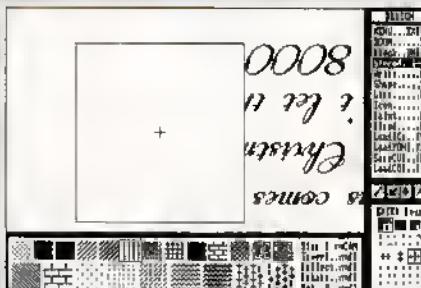


TURNING THE MESSAGE UPSIDE-DOWN

The "Store" facility shares the same program memory space as the current font, so to give us maximum space, we must load the smallest font - TINYCDN6.MDF should do the trick.

Move to the Design section so that you can see as much of the beginning of your message as possible. Launch the Block operation by pressing [UNIT]. Use [SPACE] and the cursor keys to position the Block around a large chunk of the text which includes the first word of each line. Press [1] and the chosen area will be stored. If the message "Block too big to store" appears, press [WDRD/CHAR] to undo and start again with a slightly smaller area. Scroll to the left of the page until the vertical line that was created earlier with the Box operation, is at the right of the window and press [1] to recall the stored area. Set the Extra Keys to reflect X and Y ([EXTRA]+[WDRD/CHAR]) and press [ENTER]. The stored area will now appear upside-down.

STEP ELEVEN



TURNING THE REST UPSIDE-DOWN

Repeat with the remaining section of text, again storing in [1] (this will overwrite the existing stored area and not need more memory space - which you don't have!).

This time when "pasting" the stored area, line up the frame with the first section of upside-down text before pressing [ENTER]. If the areas don't quite line up, press [WDRD/CHAR] to undo, re-position and try again. If you want a larger main window in the Design section when using the Block/Store operation, toggle the bottom (Icon) window off by pressing [SHIFT]+[RELAY].

Exit to the Layout section and use the Block/Erase operation to remove any unwanted areas on the page and save to disc.

And now the moment of truth! Press [P] and print your card. When printing is complete, fold along the lines and use a ruler and sharp knife to trim the edges.

STEP TWELVE

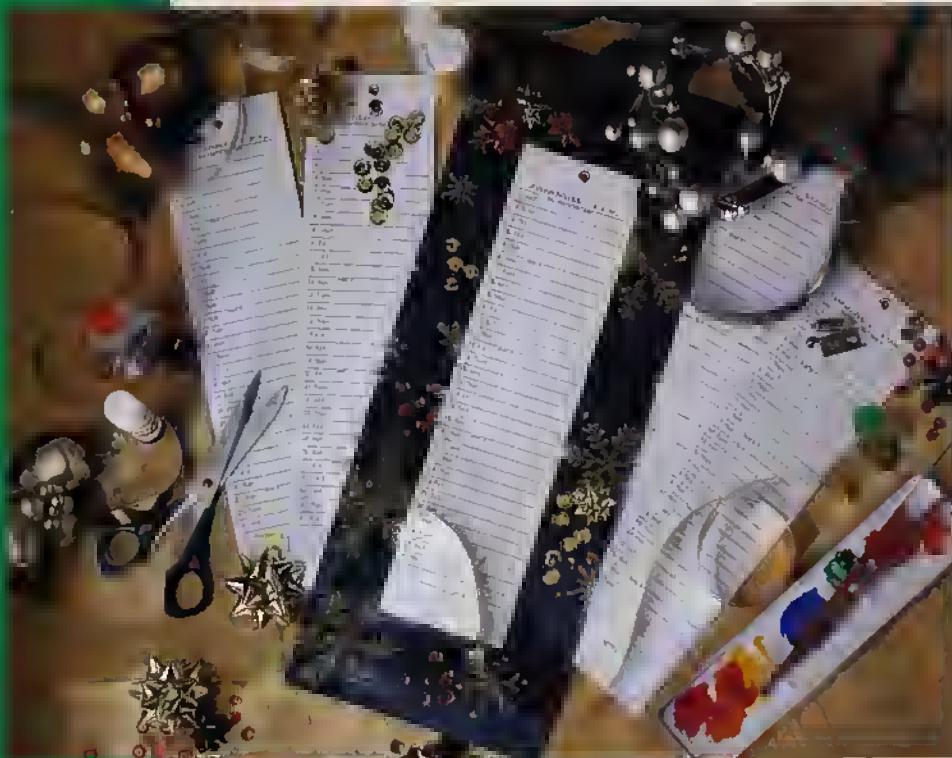


THE COMPLETED CARD

Although this may have sounded like a long job, with practice it only takes about half an hour per card. The longest part of the process is deciding what to actually put on the card! Clearly, you won't want to use the same message as we have, but you could vary the words using the same festive balloon theme.

If you want to experiment with other simple illustrations to add to the card, then go ahead! A Christmas tree can easily be achieved with four or five large triangles, overlapping each other vertically for the basic shape.

The Circle Shape operation will produce a selection of baubles and a couple of rectangles will look convincing enough as a tree trunk and tub. And to make an Easter Egg, well... we'll let you work that one out for yourself! All the hard work takes place at the planning stage - after that, it's just down to you to print out all the cards you need to send. Good luck!



You don't need a graphics package to enable you and your PCW to plan ahead for 1992. Jonathan Fisher shows you how to make a handy reminder diary using LocoScript

PLAN AHEAD!

Diaries are notorious for reminiscing the keeper of an important date when that date has passed into history. Such failings are less likely to be laid at the door of a system which can attract attention every day. A Reminder Diary, hanging on the wall of the kitchen, bathroom, office or whatever is more likely to remind you that it is your granny's birthday next week than is a pocket diary - which will unfailingly tell you that it was her

birthday last week. Such a diary is easy to make on the 8000 series PCW, can be readily updated for each year's edition, is cheap to produce and will almost certainly be in demand from your friends. What's more, you can do all of this using LocoScript!

So, let's start planning our diary. The first thing to decide on is size. A4, or 11.75", long and about 3.25" wide is both a useful and elegant shape. You may, to simplify the final cutting

operation, opt for a width of 41/8", i.e. half of an A4 sheet. You will find that, having set up your template it is only a matter of changing the right hand margin in the Layout to provide for any width up to A4 - but more of that later.

The layout that you need to set up is based on a TEMPLATE.STD. printed in draft mode on continuous paper, stapled or eyeleted at the head. This can be mounted on some sort of backing board. So, let's get started!

STEP ONE: CREATING THE TEMPLATE.STD

Essentially this is based on a single, somewhat non-standard, month. That, in turn, is based on a standard week which is copied and pasted a few times

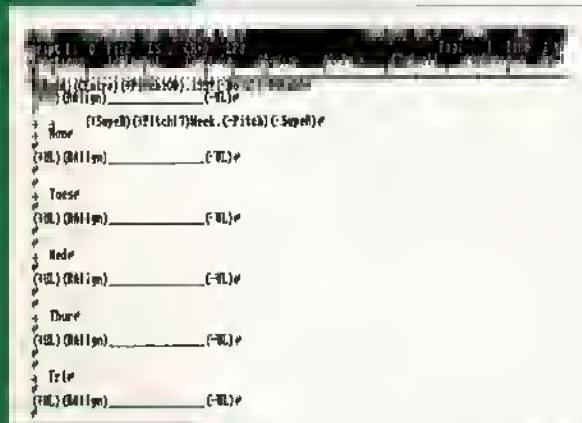
```
(+Bold)(CEntre)(+Pitch10D)[space]199
?-Bold)(-Pitch)[Return]
2nd line (+UL)(RAlign)
(-UL)[Return]
3rd line [Return]
4th line [Return]
5th line [Return]
6th line [Return]
[COPY] from line 2 to the end.
[PASTE] 6 times (to make up a week).
```

If you want to include week numbers, modify the 4th line as follows:

```
[TAB][TAB](+Super)(+Pitch17)Week[SPACE](-Pitch)(-Super)
```

Note: This applies only to the first one day sector which becomes 'Mon' To the 5th line ADD [TAB]Mon

and so on, in each sector, for each day of the week. To give Sunday more prominence set it out as (+Bold)Sun(-Bold). That is the 36th line.



Set up the basic document in LocoScript for a typical week, with stylistic instructions

and comes from a standard day which has been similarly treated. So, there's little typing in the template preparation.

The layout is based on a P12, LS, CR0, LP8 arrangement. That provides for 81 lines on an A4 sheet and it therefore follows that the line numbers in the layout do not correspond with the 'line' numbering in the top right hand corner of the screen which is based on LP6. 'Line numbers' referred to here relate to the LP8 arrangement and, to further avoid confusion, are referred to as '1st line', '2nd line' and so on.

Create a Layout along the above lines, setting the left hand margin at 1, the right hand margin at 35, and with tabs at positions 4 (for the day of the week) and 10 (if you want to include week numbers). Then prepare the following six lines (which represent a one day sector):

1st line

[COPY] from the 2nd line to the end and [PASTE] five times (to provide six whole weeks from which you can select any pattern of days in a month). This will take you on to page 2 of your

template. Add two more lines similar to the 2nd and 3rd above and a final line - '(+CEntre)NOTES' followed by [ALT][Return], to end the page - and the TEMPLATE.STD is complete.

Name it as such, and store it in a group in which there is no TEMPLATE.STD. Whenever you use that group, LogoScript will use that template as a model for layout.

STEP TWO: INSERTING WEEK NUMBERS

Once you've set the document up, and determined any stylistic instructions that you may want, you need to go on and start finalising some other details. The following assumes that week numbers are required.

What we are setting out to do is copy and adapt this template once for each month in the year. So, the first step is to create a document, say JAN .92 in the group where your diary template is stored. Into the 1st line, before the space which follows (Pitch10D,) insert 'JANUARY', delete the '?' and insert the figure '2'.

The 1st of that month is a Wednesday. [CUT] 5th to 14th lines inclusive. Insert [Space] (the date) in front of the [Tab] in the new 5th line (which is now 'Wed').

Move to a 'Monday' and [COPY] the 'Week' line immediately above it. [PASTE] this into the line immediately above the '1st Wed' and enter the figure

'1' after the [Space] following the word 'Week'.

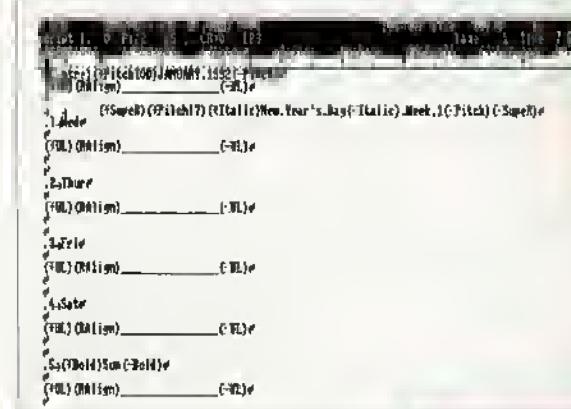
Add the day of the month to each subsequent day, but, after the 9th, omit the [Space] before the figure until you reach '31 Fri'.

Add the Week number in the space above each 'Mon' line as we have already described.

[CUT] from the line immediately following '31 Fri' in beginning of the last (+UL)(RAlign) in the template. That leaves that line plus a [Space] line and the NOTES line.

This is done in order to tidy up the appearance of uneven page lengths and to provide some space to note an important date occurring in the following month for which some notice may be needed. That particular month is then complete.

Each subsequent month is dealt with similarly. It all looks rather complicated at first glance but, once an



With the basic structure set up, you can then go on to fill in details of week numbers

Initial rhythm has been set, it is really quite simple.

At this point you will have twelve separate documents from JAN .92 to DEC .92.

STEP THREE: FIXING THE PAPER WIDTH

Before going on to detail the next steps it would be as well to deal with the paper width of approximately 3 inches.

As it is not practical to handle this shape accurately - and it is not commercially available, anyway - the idea is to print it twice on A4 sheets and cut to width after printing. Not as fearsome as it sounds!

As the paper needs to be as stable as possible during cutting it is an advantage to handle it in the form of continuous, rather than sheeted paper. As the requirement is almost certain to be for several copies, anyway, that is the most practical way of printing it.

We could, of course, have set out our TEMPLATE.STD on a 2-across basis but, unless a very long run of say thirty or so diaries is contemplated, it introduces some horrible complications which are unjustified. Properly set up, a continuous paper printing run needs

little or no supervision and to run the thing through twice is unlikely to be a hardship.

So, we have our twelve separate documents. To amalgamate them into one continuous document you create a new file - call it DIARY.92 - and by using the Insert text facility you successively copy each month into the new file until you have the twelve pages and have selected the 'A4 Continuous Paper' option.

Position the paper so that the print starts about 6mm or 1" from the left hand side and 25mm or 1" from the top of the sheet. This is to allow for binding the set. Select Draft Mode for printing - it gives perfectly acceptable quality, unless the ribbon is on its last legs, and runs reasonably quickly - and enter half the number of complete copies you require bearing in mind that you will be doubling that when you print on the

other half of the sheet. Let it run and, before tearing off at the last sheet, leave a spare sheet on the end or you will not print to the bottom of the final sheet when you run it through again.

Tear it off and feed the beginning into the printer again, having set a Left Offset of 50. That will result in the second impression appearing in the same position in relation to the right side of the sheet as the first was in relation to the left side.

If you have opted for the 4 1/8" size your right hand margin will have been set at 47 and, for the second printing operation, you select Left Offset of 42. Run it through again.

Then separate the whole into complete dihedral sets i.e. 12 sheets each. It is usually easy to strip the perforated strips off the sides of 12 sheets at a time so long as the paper and strips are held firmly until a start has been made.

Decoration

As you can see from the diaries in the picture opposite, you can brighten up your diary with all sorts of bits and pieces. We went shopping to Woolworths and came back with these goodies. The only limit to what you can do is your imagination! And, of course, you can always leave it plain for maximum clarity.

STEP FOUR: ASSEMBLING THE DIARY

Now, the cutting operation. With each set still joined at the head, using a steel straight-edge and a sharp knife such as a Stanley knife, on a piece of hardboard or some surface which will not suffer from being scored, - separate the pairs leaving a spare strip of paper in the middle if you have opted for the narrow format or, if the 4 1/8" size, split it down the middle. Now, separate at the heads and assemble in sets.

The sets can now be stapled onto a piece of cardboard of the same dimensions as the sets or mounted.

again with staples onto a larger piece of card board which the children can deconstruct with cut-outs and so on.

For a professional finish there is nothing better than a punched hole embellished with a brass eyelet which is expanded with an eyeletting punch. Both the eyelets and punch can be obtained from upholsterers and hardware shops. They provide both a means of binding the sets together and of hanging them on a nail or pin.

If further embellishment of the diary is required to show Bank

Holidays, Special Events and so on, the formula used for the 4th line can be applied. Italic type can be used to distinguish such references from the Week number which can appear in the same line. If a full A4 format version is required, for use on a desk, for instance, it is necessary only to change the layout so that the left hand margin is at 5 and the right hand margin at 90. To print centrally on an A4 sheet set the L.H. margin at 27 and the R.H. at 67. Everything else is taken care of when you Finish Edit.

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Behind the Scenes

Modern theatres can ill afford to neglect the business side of showbusiness. Dave Green took a trip to the Bristol Old Vic to see how their PCWs help out back stage

When you're at the theatre, enjoying a play or a concert, you tend not to think about the organisation these events require. But the amount of administration that goes on behind the scenes can be quite overwhelming, which is why the Bristol Old Vic has invested in a number of Amstrad PCWs to help with the workload.

"We must have at least 7 PCWs in total," said Lena Holland, of the theatre's central administration department. "We use them mostly as word processors," she continued, "but each department within the theatre will use them for slightly different things."

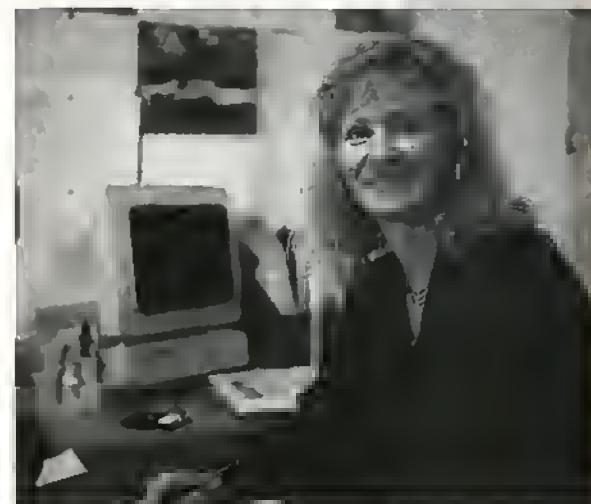
The machines, mainly standard 9512s with daisy wheel printers, are to be found at strategic locations throughout the large theatre, with at least one in each of the major departments. A grand tour of the building (and all its twisty little passages) is therefore the best way to

find out how PCWs are put to use in the everyday running of the Old Vic.

Variety performance

We start our tour in Lena Holland's administration office, where a total of 3 PCWs (all running LocoScript 2) are hard at work producing lists of telephone numbers, standard letters, minutes of meetings, and contracts of employment - in fact, most of the tasks you'd expect in the office of any moderately large business. However, the machines are also used for documents with a more theatrical flavour: cast lists, details of visiting theatre companies, and lists of directors and designers for the current season.

All the documents are stored on disc, ready to be printed out in the familiar daisy wheel style of the 9512, or to be edited again at a later date. This reduces the amount of re-typing that may be needed from time to time, especially for things like minutes of



Lena Holland shows that it is possible to keep a busy office looking reasonably tidy - with the help of a PCW9512, of course

meetings, which will often need to be exactly right.

But this isn't the only way in which the PCW can make the job of theatre administration easier. Since all the departments have PCWs, swapping information between them is extremely straightforward. For instance, each head of department can be given a disc copy of the basic form for contracts, which they can then adapt to their own particular requirements. "Or if someone's away, or off sick, then you can just quickly transfer their work across," Lena explained.

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THE SHOW MUST GO ON

The front of the Old Vic may look new, but the core of the building - the Theatre Royal - dates back to 1766, making the Old Vic the oldest working auditorium in the country. One of only three Georgian auditoria still in use, it's also classed as a Grade One listed building, and a scheduled Ancient Monument. The main auditorium itself seats 650, while the more recent addition of a small studio theatre (the 'New Vic') has a capacity of 180.

This makes the Old Vic relatively small by modern theatre standards, so that even very popular shows find it difficult to make much of a profit, due to the costs of maintaining the building. Another source of overheads is the fact that the Old Vic is a producing theatre, which means that it provides the facilities to put together its own shows from the very beginning. This is in contrast to many other theatres, which simply take in touring productions. The difference is that a producing theatre will construct all its own sets, make its own costumes, hire its own directors, and so on.

Producing theatres do provide an ideal training ground for people who want to work in the theatre, and may later move on to film or television. The Old Vic itself has provided early



The impressive facade of the Old Vic theatre, facing onto King Street, Bristol

experience for many leading actors, including Peter O'Toole, Daniel Day Lewis, Jeremy Irons, Paul Eddington and Felicity Kendal. The disadvantage is that these facilities do not come cheap, and of course contribute to the amount of administration which these theatres need.

Sadly, recent difficulties in obtaining funding have cast doubt on the future of the Old Vic, which would leave the South West without a comparable producing theatre between Plymouth and Birmingham. And so a 'Keep it Open' campaign was started in May of this year, and has already raised almost £18,000 through donations and various other sources.

Future fund-raising plans include a raffle to be drawn on December 18th, with exotic prizes like a Mediterranean cruise and a trip on the Orient Express. There'll also be a book coming out in time for Christmas, collecting together anecdotes from actors who have worked at the Old Vic, with all profits going to the theatre.

8000 Plus readers can help the appeal by supporting any of these ventures, or by sending them any unwanted hardware or software which could help in the administration of the Old Vic (and perhaps show them that you can use the PCW for more than word processing!).

Track record

Lena Holland reports that the only hardware problem the Old Vic has encountered with their PCWs (in about 4 years of constant use) is the armature wearing out on the daisy wheel printers. For a fast pick up and repair service within the Bristol area, Lena recommends Sodbury Office Machines, 14 Mina Road, Bristol BS2 9TB, telephone (0272) 541144. The computers themselves come from a variety of sources, mainly after a lot of shopping around to find the best price.

A good example of this sort of interchangeability is to be found in the publicity department. Here, PCWs are used to compose press releases and text for the theatre's numerous leaflets and information sheets. Once the text for the leaflets has been proof-read, spell-checked and finalised, it is sent away (in the form of LocoScript 2 files on disc) to the theatre's designer. The designer then typesets directly from the disc, avoiding the need to type in the text a second time, and (hopefully) preventing any human errors from being introduced at the copying stage.

The show must go on

Meanwhile, up in the production office, LocoScript 2 shows its power and versatility once again, this time being used to assemble the various production schedules needed for the day-to-day operation of the theatre.

Each show which the theatre puts on will have its own production schedule, giving the details of exactly when everything to do with the show has to happen. This will include the setting up of lighting and sound, construction of the set, the technical rehearsal, the dress rehearsal, the opening night, and finally the 'get-out' at the end of the run, when the stage

area has to be cleared ready for the next show to move in.

Co-ordinating all of these can be quite a task, given that the demands of not just the current shows, but also those still in rehearsal or at the planning stage must be considered. Storing each schedule as a LocoScript file means that they can easily be kept up to date, providing a complete picture of what will be happening in the theatre at any given point in the near future.

This is important when arrangements are being made in the parts of the theatre or other organisations. As Lena explained, "To make money in a building this size you need to be using every part of it all of the time."

The next stage

At the moment, the theatre has no immediate plans to extend its busy community of PCWs, mainly due to its difficulties in obtaining sufficient funding. "The production department would probably like to make some use of spreadsheets, for accounting purposes, but of course that's not the sort of thing that all the departments would need," Lena pointed out.

As a matter of fact, the Old Vic's limited budget is one of the main

reasons why it has ended up buying more and more PCWs. Not only do the computers save the theatre both time and money - the administration office even take carbon copies of their printouts to save on photocopying costs - but in particular, the fact that most people find the PCW "very easy to get started with" has meant considerable savings in the amount of outside training needed.

"Almost everyone has learned to use to the ones we've already got," Lena revealed. "We do have an Apple PC upstairs, but only the publicity people can use it, because they're the only ones who know how."

After seeing the PCW in action all around the theatre, it certainly seems to be the case that the Old Vic are determined to get the most out of their machines, usually by coming up with useful applications for word processing that the original designers of LocoScript probably never even dreamed of.

The final word on the subject goes to our host from the theatre, Lena Holland, who probably echoes the sentiments of many PCW users when she says: "I couldn't imagine going back to my old typewriter now - the PCWs here have become just indispensable."

AHEAD OF THE CUE

William Shakespeare was fond of comparing the world to a stage, but in fact there's a whole different world to be found behind the actual auditorium.



A form which has been drawn up with gaps in the appropriate places, so that when the text is printed out...

Act/Scene	Up	Down	Time	Interval
ACT 1	7.35 pm	8.36 pm	1 hr 1 min	
				19 mins
ACT 2	8.55 pm	9.41 pm	46 mins	
Total Playing Time: 1 hr 47 mins				
Total Running Time: 2 hrs 6				

...it all comes out just where you want! An easy way to fill in forms in LocoScript 2

Deep in the bowels of the Old Vic lies the domain of Matthew Blades, Company and Stage Manager, who, together with his trusty 9512, organises the numerous staging aspects of each show.

In practice, this will include producing memos to remind the technical and stage crews of potential problem areas encountered during rehearsal, and printing out report sheets for each performance, complete with timings of how long it went on for. At the Old Vic, the Stage Manager is also responsible for providing budget details for the technical side of each show, and may have to fill out requisitions for various items of equipment as well.

However, from the audience's point of view, perhaps the most important document of all is the props list. This is used to make sure that all of the props for all of the scenes are in the right place for the actors to be able to find them when they go on stage. A missing prop can ruin the carefully constructed dramatic tension of a scene - it can be quite difficult for actors to cope with the unexpected non-appearance of items vital to the plot, like chairs or other pieces of furniture.

Matthew stores each type of document in the form of a standard template. These are then used to set up a new disc which holds the relevant files for each show. There are two main advantages for the Stage Manager using this kind of system: "Firstly, all

these pieces of paper are much more presentable on the word processor compared to when they used to be written out by hand," Matthew commented. "Plus, everything is accountable for, because there is a definitive version which can only be called up on the machine."

One interesting technique which Matthew has devised can be seen illustrated here. A common complaint with the PCW machines is that it is difficult to use them for filling in forms, even in 'Direct Printing' mode. Matthew gets around this by drawing up his own forms, complete with Bristol Old Vic letterhead, based around a previous printout of all the information which he wants to appear on the form. By using the file containing the earlier information as a template, he can then print out to photocopies of the original grid, safe in the knowledge that, if the form has been fed into the printer correctly, all the information will be printed in the appropriate places.

Overall, the combination of the 9512 and LocoScript 2 appears to be ideally suited to the demands of the Stage Management Office. "I think it's a very good word processor," said Matthew. "It doesn't have a lot of fancy desk top publishing gimmicks; all you do is type things in, print them out, and store them away if you want to. It's just like a glorified typewriter with a filing cabinet in it - which is more or less exactly what I happen to need!"

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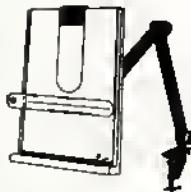
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Memory Loan

Increasing the size of your PCW's memory can be beneficial for all users of the machine. We show you how to go about it!

Once upon a time a computer with 16k of memory was a status symbol. Nowadays top flight PCs are equipped with 16Mb (that's 16,000k to you and me) or more of built-in memory.

Add to that 60Mb of fast-access hard disc, and you have a huge amount of quickly available memory.

This makes your average PCW's 256k of memory look rather feeble. Of course, you only need as much memory in your computer as your software requires. Some of the top PC applications can soak up a fair whack of RAM (Random Access Memory).

Any PCW program can run in a 512k environment; most are content with just 256k.

But as time goes on the PCW is becoming a more ambitious machine. There are programs now on the market that need at least 512k of memory to run. Flipper is perhaps the most obvious example. Others benefit from the extra memory - MicroDesign 2 and LocoScript with its add-ons will both run far more efficiently with extra RAM on board.

And since memory on your computer is synonymous with the M: drive, you will also find that with more memory, you will have more space to store documents and other files when you are using word processors, or

running utilities such as PIP and DISCKIT. But never forget to keep track of just what you have stored on the M drive - one reset of the machine, and it could all disappear!

Sn, extra memory for your PCW is a good thing. Having decided that, you then have to decide how to install this extra brainpower. There are two choices. The first is to get hold of a clip-on memory pack. The second, more secure option is to plug extra memory chips into the main circuit board of the computer, where no little prying hands can reach, there is no chance of it falling off when you move the computer, and where it does not get in the way of other add-ons that you may have.

When you buy a 256 PCW, it actually comes with the potential for expansion built in. In fact, what you are buying is not so much a 256 machine as a depleted 512 machine.

The circuit board contains a set of memory chips - eight of them - and alongside them a set of empty, unused banks. It's almost as if Amstrad had forgotten to put the extra chips in!

Under these circumstances, upgrading really is simple. All you have to do is slot eight new chips in, flick a few switches (or if you have a very old 8256, do a bit of soldering) and your machine's potential has been doubled.



This is the PCW8256 before the installation of the extra memory chips - complete with tools that are needed for the job

Notice, however, that there are a few things that you cannot solve with your upgraded memory. Perhaps the biggest of these is the old chestnut of BASIC program sizes. You will never be able to remove the 31k or so stricture on the size of these programs - simply because of the way that the internal memory addressing is organised.

On the other hand, eight extra memory chips will be able to maintain a much greater amount of Jemsam information on the M: drive.

So, how do you go about installing this extra memory? Simple. Follow our twelve step guide to installation!

Fact File

• If you wish to carry out this installation process yourself, one thing is certain - you are going to need some memory chips! We got ours from Silicon City, who you can contact at their mail order address, which is Dept 8, Postal Buildings, Ash Street, Windermere, Cumbria LA23 3EB. Their telephone number is (05394) 88707.

The upgrade kit - with eight memory chips, the practice chip and solder wire should it be needed - costs a very reasonable £16.95 including VAT.

• Flicking through the pages of 8000

Plus will give you the names of other suppliers: Compact Micros and West of Britain, for instance.

• Unfortunately, the memory slots inside your 256 machine only provide the potential for an internal upgrade to 512k. But if you decide to go for even more memory at some point in the future, this will not jeopardise your chances. Your machine will still be able to accept RamPacs, Sprinters Hard Discs and all the other additional memory paraphernalia of PCW add-ons!

• Why is your M: drive sometimes called RAM? RAM stands for Random Access Memory which does not mean that things are stored on it by chance - but that the computer can access any part of it at any time.

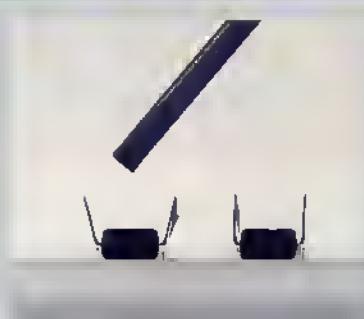
CHIPS WITH EVERYTHING

To carry out this operation, we got our extra chips from Silicon City, who provide their chips with the 'legs' pre-formed into the correct shape for the PCW (the process of bending them into the correct shape is known for some reason as 'jigging'). However, they actually come from the manufacturer with the legs splayed slightly outwards. You can see the difference quite clearly in the two chips shown in the picture.

If your chips arrive with their legs 'unjigged' you will have to reform them yourself. It will take some force to do this - the legs are quite strong - but you must be careful not to overdo it. You do not want them to snap!

You must also make quite sure that you have removed all static from your body before 'jigging' the chips.

Silicon City's upgrade pack also comes with the 'practice chip'



The chip in the left is in an incorrect shape for installation - it needs to have its 'legs' pushed inwards, like the one on the right, before it will fit properly.

mentioned in the following steps. If your pack did not include such a chip, you will obviously have to omit that part of the installation procedure, and go straight into plugging the real chips into

their sockets. Do not try to remove them once they are correctly fitted, according to the rule that you should handle the chips as little as possible.

For the majority of machines, fitting extra memory will not require any soldering to be done. If your computer was manufactured since 1986 this should certainly be the case. But if your PCW is older, you may have a little soldering job on your hands.

You can check whether this is the case when you take the back off your machine. Look at steps 9 and 10 on the next pages, and look for the switch panel on the circuit board.

If you can find it, you do not need to do any soldering; if you can't, then don't worry. Only one small bit of soldering is required, and instructions that Silicon City provide with the memory chips cover this in great depth.

Hints & Tips

● Step 1: To carry out this operation, you will need: a Phillips screwdriver (size 2 is recommended) with a long shaft, a small, thin bladed screwdriver, and a blanket or other soft padding to lay your computer down on.

● Step 2a: Before you start this operation, Turn your computer off, and remove all external fittings, including the printer and the keyboard.

● Step 2b: It is worth having a small container set aside for the screws that will come off the casing. Make a note of which goes where, though, before you mix them up! Each set of screws is a different size.

● Step 3: Removing the pedestal will make it much easier to reach the sockets into which the chips are plugged.

● Step 4: Before you start handling the circuit board, you will need to earth yourself. The best way to do this is to touch a radiator or a tap – just for a short while, to discharge any static you may have about you. Then return as quickly as possible to your workstation.

● Step 5: If you do lift the circuit board clear of the machine, lay it on a soft cloth to avoid scratching.

STEP ONE



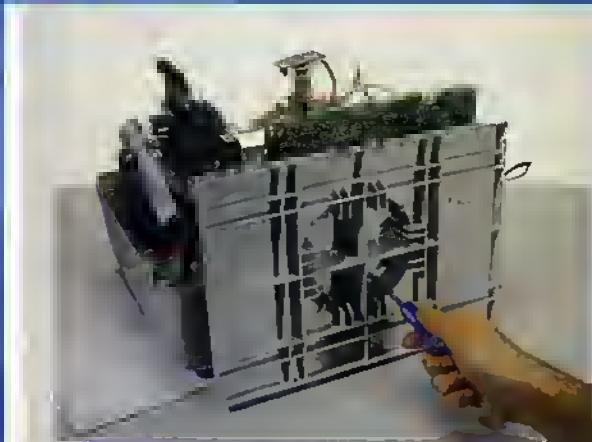
Collect together the tools that you will need (see margin note for step one). A couple of pairs of tweezers (one metal, one plastic) might also come in handy. You may also find that you need a small soldering iron, if your computer is an early manufacture specification. Have the chips close to hand, but do not remove them from the packaging they came in.

STEP TWO



Switch your machine off at the mains, but leave it plugged in for a minute or so to allow any excess static to drain away. Remove the plug from the socket, and turn your computer over so that it is face down on some soft padding on the work surface. Locate the six screws which hold the back of the casing to the monitor, loosen them and lift the back off.

STEP THREE



Carefully remove the screws, and put the back casing to one side. Now you can remove the pedestal. Turn the computer round so that the base is facing you, and find the screws that hold the pedestal in place. Remove these screws, then manoeuvre the plastic pedestal up and off the plastic catches that hold it in place. Put the pedestal and screws to one side.

STEP FOUR



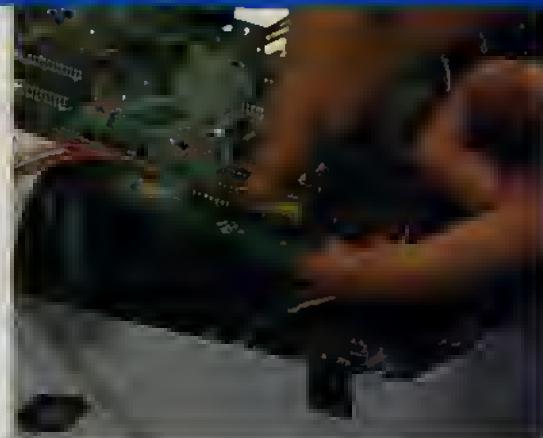
Find the main circuit board. This is the large green board between the monitor and the disc drive. In order to access the chip sockets, you will have to raise this circuit board. To do this, find the clip at the top of the circuit board (it is towards the front of the machine). Press on this clip with one finger, at the same time pulling the circuit board gently upwards.

STEP FIVE



There is no need to take the board completely out of the computer. All that it needs is for the circuit board to be raised a couple of inches. If you do need to take the circuit board out completely, lift it very carefully and manoeuvre it into a position where you can lay it on top of the computer. Now locate the empty sockets, as in the picture.

STEP SIX



Earth yourself, then take the coloured plastic chip from the container. Pick up the chip only by the ends, without touching the legs. Position the chip over one of the sockets, it is the right way round if the writing on the chip is the same way up as on the installed chips, and if its notch is in the same orientation as those on the board.

STEP SEVEN



When you are happy that the chip is in the correct place, push it home. When the practice chip has slotted home, remove it again using a flat-bladed screwdriver to prise it away from the socket. Check to see that none of the legs have become bent in the process. If they have, straighten them with the tweezers – but earth yourself first!

STEP EIGHT



Once you are happy that you have the 'feel' of the chip installation process, you can go ahead and install the 'real' chips. There are eight chips and eight sockets, and it does not matter which chip goes into which socket. Make sure that you have each chip the correct way up – and that all the legs of each chip go home as they are meant to.

STEP NINE



Once all the chips are in place, you must re-set one link in the computer's internal system. For most 8256 owners, this will be quite simple. First you must locate the set of small dip switches on the circuit board. You will find these near the chip which you can see in a cut out square in the centre of the board. They are just above and to the left of this.

STEP TEN



You only need to worry about two of these switches – those labelled A and B. At the moment A and B should be set with the B switch up in the 'on' position, and with A 'off'. These two positions must be reversed, so that A is on, and B off. When completed, they should match the two switches C and D. Use a small screwdriver blade to move the switches.

STEP ELEVEN



That is the end of the installation process. Now you can reassemble the computer. Begin by putting the circuit board back into place. If you had removed it completely from its fittings, manoeuvre it carefully back into its guides. Push the clip at the top of the circuit board down again to allow the circuit board to fit into place.

STEP TWELVE



Now screw the pedestal and the back of the computer into place, and stand the computer upright. Plug in the keyboard, and switch the computer on. Put your CP/M disc into the drive, and type PIP M:=*. * [RETURN]. When the transfer has finished, type SHOW M: [RETURN]. Successful installation is shown by the message 'Space!', with any number over 120.

Hints & Tips

● Step 7: It will take quite a bit of pressure to push the chips home, and you should put some fingers behind the board to help you do so.

● Step 8: We found that the best way to install the chips is to start at one end of the bank of sockets, and work to the other. If the legs of the chips do not slot home as they are supposed to, remove the offending chip and bend the leg back into shape, again remembering to earth yourself.

● Step 9: To locate the dip switches, look for a couple of resistors marked R107 and R108. The switches are nearby.

● Step 10: If you can't find the switches, then see page 43 for what to do: this is the small soldering job we mentioned there.

● Step 11: When re-positioning the circuit board, be very careful not to catch any wires in this process, or to pull any loose. Also, try to avoid touching it too much.

● Step 12: If the back of the computer it does not want to go on when you first try to replace it, don't force it. Instead, just take it up a little and try to identify what is causing the problem.

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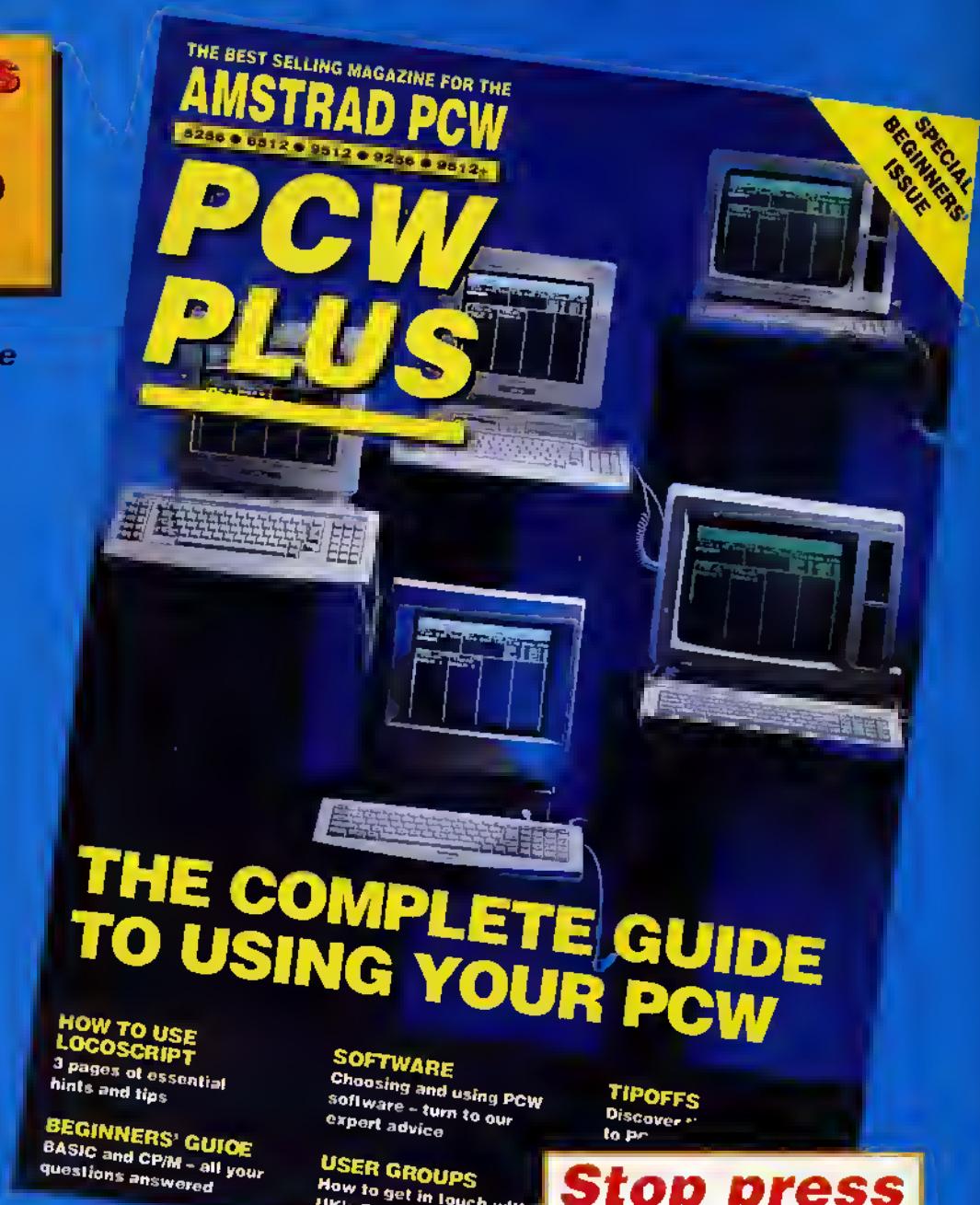
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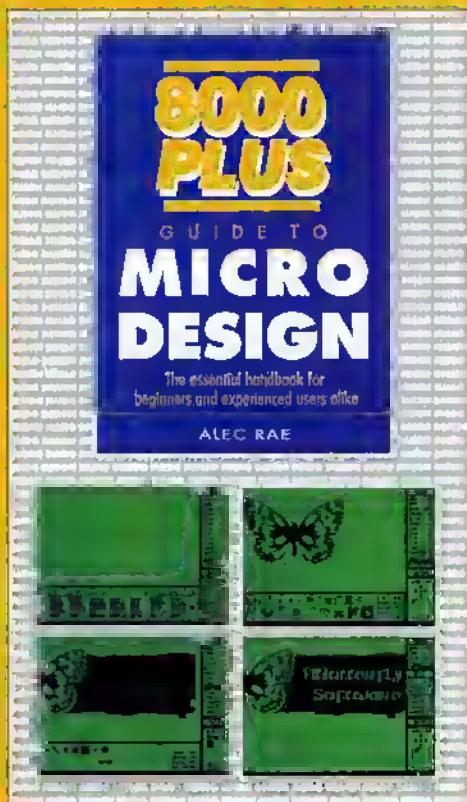
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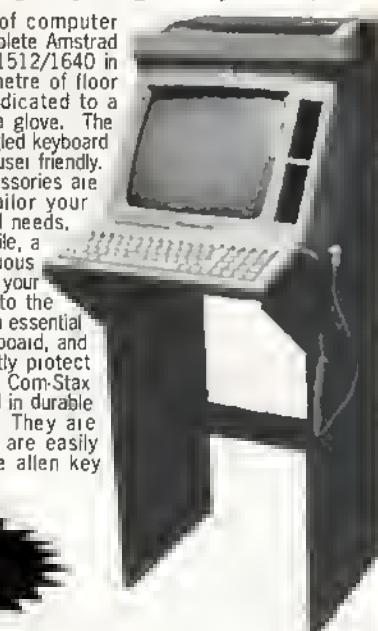
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The collection consists of variations on the 3 basic themes of Cribbage, Dominoes and Dice - there are two versions each of Cribbage and Dominoes to play against the computer, two 'patience' games (one with cards and the other with dice), and a single player Yahtzee-style Poker dice game, making a total of 7 in all.

You need hands

The feature that will probably attract most people to the Games Plus Disc is its implementation of the classic card game, Cribbage. Having chosen either the 5 or 6 card version of the game, you are presented with a rather dull screen display consisting of a traditional Cribbage score board, and the various sets of cards which you and the computer will be playing with.

To explain how Cribbage is played would take a lot more space than is available here. So, without going into technical details, let's just say that you have to choose and play cards which will form particular point-scoring combinations. The manual confidently asserts that "if you haven't played Cribbage before, then it will take a few hands to get the hang of things", but this estimate will probably turn out to be just a little on the optimistic side.

Rather than giving beginners a comprehensive introduction to Cribbage as a whole, the Games Plus collection is content with providing a rough outline of the rules, and a 'Cribbage Patience' game, where you can experiment with combining random cards in different ways to see how they score. From an inexperienced player's point of view, however, a major failing of all the Cribbage programs is that they don't show which cards are scoring which points, a considerable source of confusion unless you have been playing long enough to know the many (and complicated) rules by heart.

Despite this, and the unimaginative graphics, the Cribbage games are easily the highlight of the disc. However, we are yet to be convinced that the computer is good enough to offer serious opposition to the more experienced Cribbage player - it had been a long time since anyone on the 8000 Plus team last played, and we still found ourselves beating the program on a fairly regular basis.

Join the dots

Having come up with an effective Cribbage score board routine, Pete Gerrard gives users a second chance to appreciate its cleverness by sneaking it into all the Domino games as well. There are two of these on the Games Plus disc, both 'variations' on the game known as Fives and Threes. The name of the game comes from the method of scoring, in which points are awarded for making the total value on the ends of the domino trail a multiple of 5 or 3 (or both). The 'variations' offered by the package refer to the fact that you can play this game using dominoes whose maximum number of spots can be either double 6 or double 9.

Either way, you and the computer take it in turns to join your dominoes to the domino trail, assuming of course that you have a domino that matches one of the ends. To be fair to the program, it does play an acceptable game of dominoes, although the graphic which represents the growing trail is a little disappointing. The Domino games also feature both a documented 'cheat' facility, which shows you the computer's dominoes, and an undocumented one, which allows you to pretend that you can't go when in fact you can. Of these, the first is probably the most tactically useful.

Raw deal

The final options offered are two dice games, Tumbling Dice and Yacht. Tumbling Dice bears quite a close resemblance to the Cribbage patience game mentioned earlier; this time you place freshly-rolled dice on to a 5 by 5 grid. Points are awarded for making Poker dice hands (full houses, three of a kind, and so on) or totals of 18, depending on the version you choose.

Yacht (as you might have guessed from the name) is a slightly modified version of the Poker dice game



It's neck and neck in this titanic Cribbage struggle of human versus machine. And may the best hand win



From top to bottom: the score board, your selection of dominoes, and right down there in the bottom left corner, the 'domino trail'

'Yahtzee', with different scoring for some of the outcomes. In general, the dice games are unremarkable in concept and uninteresting to play - we've typed in BASIC games that have held our attention for longer than these two.

Overall, it is difficult to recommend the Games Plus collection on its merits as a compilation - all the games run slowly, and the graphics are uniformly poor. Plus, for the same (high) price, the CDS Home Entertainment Centre offers a much wider variety of games, including a better version of Dominoes. Cribbage players desperate for an opponent might find Pete Gerrard's program a worthwhile buy, but should be warned that the Cribbage games aren't quite friendly enough to be used by beginners, and seem to lack the strategic play that would sufficiently challenge experts. Having reviewed this product, the prospect of spending Christmas watching old films on the TV doesn't quite seem so bad after all.

Games Plus Disc

Pluses

- ▲ Plenty of different game options
- ▲ Competent computer opponent

Minuses

- ▼ Lacklustre graphics
- ▼ Minimal explanation of how points are being scored
- ▼ Fixed level of difficulty
- ▼ Little variation in the games offered

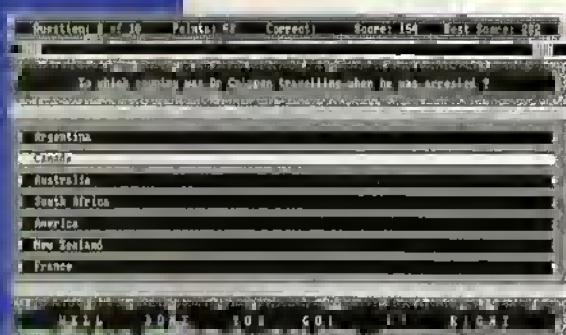
Ease of use 3/5

Presentation 2/5

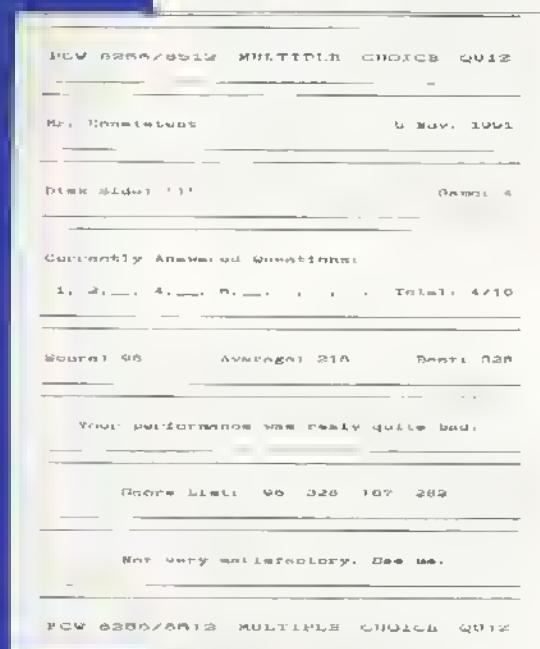
Challenge 3/5

Addictiveness 4/5

8000 PLUS
value verdict 11/20



Another lucky but educated guess, and a dangerous murderer is apprehended. One of the medium difficulty questions meets its match in Multiple Choice Quiz



A typical report card printed out by Multiple Choice Quiz, preserving for posterity both the quiz player's scores and the program author's overly-imaginative spelling skills

One of the most significant leisure discoveries of the 1980's was that the popular board game 'Trivial Pursuit' could be played just as well without a board. Across the world, fans of pointless and obscure facts realised that all you really needed for a fun evening of ritual humiliation was a set of moderately difficult questions and a few friends of varied intelligence. And once this secret was out, no pub, club or leisure centre was safe from computerised quiz-masters machines, soon proving their worth as crafty bards found that boisterous outsiders could be easily silenced by the simple measure of subjecting them to a sound 'trivvying'.

In its own way, Multiple Choice Quiz recreates this mental challenge, testing you with an astonishingly wide range of questions, all posed by your PCW. The package consists of a single 173k disc, together with some very brief documentation, which mainly tells you how to get started with the program. One thing which the booklet could have been a little clearer on, however, was

the fact that the disc contains the same quiz program on both sides, but with a different set of questions on side 2 to that used on side 1.

Once the disc has started loading you are treated to an attractive screen display, featuring a moving bar which indicates how much more of the program is to be loaded. When the program has finished loading, you are given the option of pressing [1] or [2], to choose between answering a group of either 10 or 20 questions. And then the quiz can commence.

Life

The topics of the questions are extremely varied, ranging from mental arithmetic to TV sitcoms, history, literature and the East Coast Shipping Forecast. Unfortunately you have no control over the area of knowledge where your questions come from, nor can you specify how hard you would like them to be.

This is not to say that the questions are all of equal difficulty - we encountered both "What is the 23rd letter of the alphabet?" and "What is the order of the presidents on Mount Rushmore?". Typically the difficulty increases as you progress through the set of 10 or 20 questions, with the number of points awarded per question increasing accordingly.

For each question you are given a choice of 7 possible answers, from which you select the one that you think is right using the cursor and [ENTER] keys. 7 alternative answers are a lot to consider, compared to the more traditional 3 or 4; it seems that this number may have been chosen because it fits so nicely on the screen.

On the other hand, having this many options could help to prolong the useful life of the program, given that the computer does not tell you the correct answer when you get a question wrong. The documentation claims a total of 640 questions spread across the two sides of the disc, but after a while you are bound to start seeing the same ones coming round again. So, even if your last guess at a particular question turned out to be wrong, there are still another 6 possible options you could try before eventually hitting on the correct one.

At the end of a round of questions, your score is compared to the average of previous games, and you are given the option of printing out your performance as a permanent reminder of your skill (or lack thereof). The program then amuses itself with another small animated display, and you have to wait for a few seconds until another brain-teasing game can begin.

Illiteracy

One highly noticeable feature of Multiple Choice Quiz is that the majority of the questions, while factually correct, often seem to be

referring to some sort of parallel dimension, an alternate reality in our own in which familiar vowels and consonants are inexplicably rearranged into strange new configurations. Seriously, the questions and answers used in this program feature some of the most appalling spelling we have ever seen in a text-based game.

For example, the animal kingdom features the bizarre new additions of "mekodiles", "Alsatius", and "Golden Retrievers", and it is somehow less than reassuring at the end of a game to be told that your performance was "reasonably good" or "really quite bad" depending on how well you did. The author(s) of the program also appear to bear particular ill-feeling towards innocent members of the slumwhiz community, having singled out "David Bowie", "Freddy Mercury", "Elvis Castello", "Stasky and Hutch" and "Mickle Caine" for similar treatment.

Although a fair degree of enjoyment can be derived from these and many other gems lurking within the question file, they are unfortunate oversights considering that this release of the program is supposed to be a corrected version of an earlier one. It's a shame because they do detract from the otherwise professional presentation of the quiz, and seriously undermine any possible educational value the program could have had.

However, if you're just playing it for fun, these errors shouldn't impair your enjoyment too much, unless of course you're an absolute stickler for grammatical accuracy.

And the pursuit of trivia

At only £5.95, Multiple Choice Quiz offers very reasonable value for money. It has a number of good features, and is obviously the work of quite a talented programmer. But, as is often the case, more thought could have been directed towards the human aspects of the game. This refers to not just the spelling mistakes, and the excessive number of options mentioned before - the game also lacks the competitive edge of, say, Harold Gale's Micro Trivia, a simpler program which is far more exciting to play due to the fact that you have a limited amount of time (indicated on screen) in which to answer.

Multiple Choice Quiz does compare quite favourably with Cartographic Software's UK Trivia Treasure Hunt, which lacks Multiple Choice's breadth of subject matter, and seems to spend most of its time drawing maps. If you can tolerate the occasional delay, and the almost as frequent spelling mistakes, Multiple Choice Quiz should give you many hours of enjoyment. Nevertheless, it is frustrating that such a promising package has been hindered by some rather arbitrary design decisions, which could perhaps be improved upon in future versions of the program.

Multiple Choice Quiz

Pluses

- ▲ Attractive screen display
- ▲ Varied range of questions
- ▲ Keeps track of your performance

Minuses

- ▼ Appalling spelling
- ▼ 7 possible answers is too many
- ▼ Can't select topic

Ease of use 4/5

Presentation 4/5

Challenge 3/5

Addictiveness 4/5

8000 PLUS value verdict 15/20

CHESS SELECTION - COLOSSUS 4 CHESS • CYRUS CHESS • CLOCK CHESS 89

One thing you should get out of your mind before considering chess is the fact that "it is for intellectuals". While it is not a game often played by utter idiots, you don't have to be a genius to enjoy it. And your PCW can help you get a great deal more from it than simply moving a few pieces around.

Chess is played around the UK in pubs, homes and clubs. Chess Clubs are the places where you are most likely to learn the most about the game, and improve your own gameplay. However, it can be intimidating to walk into a Club or Open Tournament, sit down and start playing. This is where your PCW could come in handy. Arm it with a decent piece of chess software, sit down, switch on and before too long your confidence could be high enough to at least consider playing for real.

History lesson

PCW Chess has a great history backing it up. It dates back to the first chess playing computers, formulated as far back as the 1800s and moving right up to date with huge corporations such as IBM which invest hundreds of thousands of pounds in designing new machines specifically to play the game in tournaments worldwide.

One point you should be aware of is how computers, including your PCW, actually play the game. Unlike humans

who can look at a board and a position and have a rough idea intuitively what a really duff move looks like - for example moving a Queen directly in front of a Rook - the computer begins its analysis under the impression that all moves are as valid as each other. It is forced to look up to ten moves ahead, a pointless activity even if sounds impressive because the board can totally change in ten moves - in order to get some idea of what to do with one simple piece.

Good chess software has some set moves built into it. This normally takes the form of an Opening Book. This is literally a list of several combinations with which to begin a game. You will notice, however, that the deeper into a game you get, the more a computer will need to think. This is simply because the more pieces there are on a board, the more moves are possible.

A useful tip which derives from this knowledge is that computers very rarely lay traps. If your PCW makes a move it is because it feels that it can follow that moved piece up.

Humans on the other hand, can make seemingly meaningful moves which are only really there to force the computer to commit a piece to an area of the board which can then be closed off, thereby trapping the piece.

Try this with a computer's Queen, one of your Pawns and two Knights to the left of the board. It won't work every

time, but the chances are that you can close down the Queen so that she is next to useless.

Checkmated

If you are new to the game you should also bear in mind that you are likely to be beaten hollow for the first few games. Don't be downhearted by this, it is the only way to develop some kind of chess playing mind. The more you play against your PCW, the more you will be able to see moves before they happen. And of course, unlike true chess, there is always the option to take back moves. This is not recommended as a learning tool however, as it leads to lazy play - you begin to fall into the trap of believing that every time you make a mistake it will not be fatal.

Try using that kind of thinking in a club or pub game and see what kind of response you get from your foe, it is not likely to be a friendly little bleep.

All-in-all your PCW and some well programmed chess software will stand you in good stead whether you are a casual player or someone who takes the game more seriously.

The machine is patient and will let you get away with murder if you wish. But the one thing you are guaranteed to get from the combination is hours and hours of brain-teasing enjoyment. And that's more than can be said for many other computer games.

COLOSSUS CHESS • £17.99 (inc. p&p) • CDS SOFTWARE • (0302) 321134 • ALL PCWS

This is one of the classic chess games. While it is now looking a little tired with some rather clumsy graphics and few options to play around with, the gameplay itself is very strong.

Despite the lack of frills and bolt-on extras such as the ability to print out

moves, playing a few hours with Colossus 4 will sharpen up your chess playing if you are a regular player, it will also give a beginner a good education into the basics of the game.

Frankly, Colossus Chess would be a good challenge for the experienced

player who needs little enticement into playing the game.

For the beginner however, it offers little in the way of thrills. It is not an unfriendly way to play chess, with the pieces being moved with a cursor operated from the numeric keypad to the right of the keyboard. Plus, a 3D board is offered on which to play out your battles - a useful addition, and a nice touch!



Colossus Chess is probably best aimed at the experienced player



Watch your progress in Colossus chess on screen on the special 3D board

CYRUS II CHESS • £13.25 (inc. p&p) • A-Z COMPUTERS • (081) 744 1834 • ALL PCWS

Cyrus Chess will give most club players a more than adequate run for their money. It comes with several levels of gameplay including Adaptable and will also save games for you. This is an excellent option if you really want to get

the most from your playing because it enables you to replay the game - in reverse - and see where you made that fatal error or how that trap actually worked which let you take the opposition's Queen. Games are saved

with their own file names, not simply Chess1 or Chess101. So you can even remind yourself of the type of game you played by naming your files like Rookchk or Knights. Not only can the games be saved, the moves can also be

printed out. This can happen as you play, although this can be hugely irritating, or after you have finished. Again this is useful in that it allows you to study your moves and analyse where your strengths and weaknesses lie. Both 2D and 3D

boards are available, although the 3D option is more to show off the graphical abilities of the software and the PCW than to encourage good play. It is, in fact, rather frustrating to play the 3D version because the moves take so long

to happen, and it is difficult to 'see' the board and so create strategies. The 2D option, rather than being dull, is more conducive to a good strong gameplay.

Generally, Cyrus Chess comes with a strong recommendation.



The opening screen to Cyrus II Chess - now wait for the gameplay!



The Cyrus board can be either two or three dimensional - although 2D is clearer

CLOCK CHESS 89 • £19.95 • CP SOFTWARE • (0993) 823463 • ALL PCWS



Watch the seconds tick away as you pit your wits against your PCW in Clock Chess

Clock Chess comes with the slogan "Reaches those parts that other chess programs cannot". And it is not far off the mark. The game comes with several options including the quite breathtaking

Kriegsspiel or Blindfold game. This derives from one of the favourite show-off tricks of Masters and Grand Masters in which they will play through an entire game literally blindfold, keeping all the moves inside their heads. If you feel that you are up to it, Clock Chess gives you this choice. All you get to see are the annotated moves rather than the actual piece position. While this might seem a pointless it does actually improve a chess playing mind by forcing it to visualise moves ahead.

Another 'real life' chess option open to you with Clock Chess explains why it is so called. This is the Play Against the Clock option.

This lets you set up for a Blitz game, one of the most exciting options available in chess. What the Blitz entails

is that each side is given up to five minutes to play a whole game. The time limit can be set from 1 second to the 'whole' five minutes - failing to complete the game in this time means losing it.

If this isn't enough, you can also fix the way the software 'approaches' the game. What this means is that you can set the Desirability of a Draw. This moves from Clock Chess treating a draw as if it was as bad as a loss, or from treating a draw as if were a win. Unlike the other chess games, this option really does provide a more realistic and un-computer like game of chess.

Clock Chess is really the strongest of all the chess games for the PCW and can be thoroughly recommended for beginner and expert alike.

JARGON BUSTER

Chess and computers.

The combination looks like it should throw out vast amounts of jargon to be coped with by the average human being.

This, for once, is not the case. A few minutes after you have bought your first computer chess game you should be able to get involved. However, the following terms should enable you to get more from the game and your investment.

Opening (Opening moves):

The Opening is one of the events in chess which really does put people off. The reason for this has a great deal to do with the fact that many openings have obscure names such as The Sicilian, the Ruy Lopez, and the Poisoned Pawn, rather than being straightforward. A good chess game on the computer will enable the user to practice openings and learn from them. Most software comes with an 'Opening' book which contains several five to ten move opening sequences which it can play through without expending valuable processor time on 'thinking'.

Adaptable level:

All chess games can play at several levels, from beginner through expert to infinite. One of these levels is more useful to the beginner than the others, and this is Adeptable. This means that the computer will play its moves in roughly the same amount of time as you spend making yours. This puts less pressure on you to keep up, or to think for extended periods of time.

Kingside/Queenside:

This is normally applied in statements such as "The Queenside Bishop or Queen's Bishop". This just means that a piece, no matter where it ends up on the board, began life on the left or right of the board.

Ranks and Files:

Ranks are the squares across the board. Files are the squares which go up and down the board.

Castling:

This is a ploy used, normally, in the early part of a game. The idea is that your King and the Rook (or castle as it's

known) on the King's side of the board exchange pieces. In fact the King moves three places to its right and the Rook moves three to its left.

The rules are that there must be no other piece blocking King or Pawn, and that neither King nor Pawn have been moved prior to castling. It is not true that you cannot castle if your King has been in Check. To complicate matters slightly, you can also Castle on the Queenside. Simple when you know how!

Check/Checkmate:

Yes there is a difference. Check means that you have put your opponents King under threat but that King can either be defended or can move out of Check. Checkmate is more terminal. In this case the King cannot be defended and nor can it escape from the threat.

Promotion:

This occurs when you manage to get a Pawn to the final rank on the board. You are then given the option of Promoting the Pawn to any other major piece. Contrary to popular belief, you do not have to turn the pawn into a Queen.

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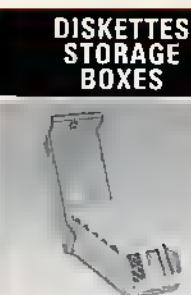
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Listings

Whether it's updating text files, or blowing up buildings just for fun, it's all here in Dave Green's bumper bundle of Christmas Listings

CHARSWAP.BAS by Arthur Baker

This program addresses some of the shortcomings of LocoScript's 'find and exchange' facility. Within LocoScript, strings to be found and exchanged can only consist of printable ASCII characters, with the result that, for example, that you can't automatically replace all occurrences of the 'bold on' code with the 'italic on' code. But rather than going through the document laboriously replacing them all by hand, now you can get CHARSWAP.BAS to do them all for you, automatically!

Dr Baker, author of the program, uses it to translate LocoMail programs into a form which he can print out on his 9512 daisy wheel. But the program is versatile enough to be used for straightforward swaps of other control characters, like 'bold' or 'underline'. And even if you're happy with your emphasis codes for the moment, the program can still be useful, since it can carry out a number of simultaneous 'find and exchange' instructions within ordinary word processor text.

To use the program, you just give it the name of an ordinary LocoScript (or other text) file, and the name of the file for the modified version to be written to.

CHARSWAP.BAS then proceeds at a moderate pace through the source file, making the required substitutions, and highlighting them in reverse video on the screen. Character codes that cannot normally be printed on screen are displayed in hexadecimal form.

When the program has finished, you can print out the new file from CP/M using PIP or TYPE. If you want to use the new file within LocoScript, do not try to edit it directly – you must add it to an existing LocoScript 2 document (using the "Insert Text" option), and select "Ignore and continue" on both occasions when it warns you about the unexpected end of file.

The program as presented here is set up to convert LocoMail control codes into their ASCII printable forms, but it should be easy enough to modify for other tasks. The first DATA statement (line 330) states the number of characters to be displayed across the screen (24 should suit most users), followed by the total number of character strings to be exchanged – 5 in this example. Next the computer needs to know the lengths of the strings to be searched for (line 340), followed by the string characters

themselves (line 350). Exactly the same then applies for the strings to be used as replacements (lines 360 and 370).

One feature to look out for is that the actual "find and exchange" character data can take the form of either numerical ASCII values, or the characters themselves. Any data item longer than one character in length will be interpreted as a number – this is why extra decimal points are needed in line 350 to ensure that the digits are interpreted correctly as ASCII values rather than characters. To find out more of LocoScript's internal control codes, Dr Baker recommends preparing a trial document containing the codes you are interested in, and examining it using either the CP/M utility DUMP, or CHARSWAP's own screen display.

Finally, to give you a better idea of how to construct your own data for the program, here is an alternative set of DATA statements, which will convert all bold instructions in italic lines.

330 DATA 24, 2
340 DATA 2,2
350 DATA 3.0., 4.0.
360 DATA 2,2
370 DATA 3.5., 4.5.

How to type in a listing

First start up CP/M and type 'BASIC' [RETURN]. You can immediately begin typing in the listing, including everything except the numbers on the far right hand side. These are for the special CHECK3 program which appears at the end of this month's Listings. Only use the [RETURN] key at the end of each full line of text. Make sure that you type everything in as accurately as you can, especially punctuation, and be careful not to confuse the letters 'O' and 'T' with the numbers '0' and '1'. Before you try to RUN the program, remember to save the finished program to disc using SAVE followed by the program's name in inverted commas.

```

10 PRINT: PRINT "CHARSWAP.BAS exchanges character strings - by A R Baker"
20 WIDTH 255: READ sx,jx: DIM nx(jx),px(jx)
30 FOR j=1 TO jx: READ nx(j): NEXT j
40 inx=0: FOR j=1 TO jx: inx=MAX(inx,nx(j)): NEXT j
50 DIM c(jx,inx),a$(inx)
60 FOR j=1 TO jx:FOR i=1 TO nx(j):READ x$:GOSUB 320:c(j,i)=x:NEXT:NEXT
70 FOR j=1 TO jx: READ px(j): NEXT j
80 ipx=0: FOR j=1 TO jx: ipx=MAX(ipx,px(j)): NEXT j: DIM d(jx,ipx)
90 FOR j=1 TO jx:FOR i=1 TO px(j):READ x$:GOSUB 320:d(j,i)=x:NEXT:NEXT

```

279D
1484
1158
18E5
0B95
222E
116A
216E
223B

Lines 10-90 read in all of the find and exchange data, storing it in the form of some rather complicated arrays

```

100 PRINT: f%=0: WHILE f%=0: WHILE prog$=""
110 PRINT "Original file name";TAB(65);: INPUT; "", prog$: PRINT: WEND
120 IF FIND$(prog$)="" THEN PRINT "Program not found": prog$="" ELSE f%=1
130 WEND: prog2$="": WHILE prog2$=""
140 PRINT "Name of file to write to";TAB(65);: INPUT; "", prog2$:
150 PRINT: WEND: PRINT
160 OPEN "R",1,prog$ .1: FIELD 1,1 AS a$ : OPEN "O",2,prog2$,1

```

12C7
228E
1F64
1059
1C78
0C37
161B

Next, the appropriate files are selected by the user, and opened for reading and writing to

170 s=1: m=1: GET #1,m

07C7

Listings

```

180 WHILE NOT EOF(1): FOR j=1 TO jx: flag=0: i=1: WHILE i <= nx(j) 1D3E
190 a$(i)=a$: IF ASC(a$)<>c(j,i) THEN GOSUB 230 ELSE GOSUB 290 1759
200 i=i+1: IF k>>0 THEN m=m+k: GET #1,m 1084
210 WEND: IF flag=1 THEN j=jx 0DF0
220 NEXT j: WEND: CLOSE: WIDTH 80: END 119F

```

Lines 170-220 search through the source file character by character, acting on any matches found

```

230 IF j=jx THEN k=2-i: b$=a$(1): IF NOT EOF(1) THEN GOSUB 260 1A44
240 IF j>>jx THEN k=1-i 0A7A
250 i=nx(j): RETURN 08E7
260 PRINT #2, b$;: IF ASC(b$)>31 AND ASC(b$)<127 THEN PRINT b$; " "; 1850
270 IF ASC(b$)<=31 OR ASC(b$)>=127 THEN PRINT HEX$(ASC(b$),2); " "; 1A02
280 s=s+1: IF s>sx THEN s=1: PRINT CHR$(13);CHR$(10);: RETURN ELSE RETURN 2416
290 k=1: IF i>>nx(j) THEN RETURN 0FD8
300 FOR ip=1 TO px(j): b$=CHR$(d(j,ip)): PRINT CHR$(27)+"p"; 17EE

```

These three sub-routines deal with the different outcomes which can arise during the earlier matching part of the program

```

310 GOSUB 260: PRINT CHR$(27)+"q";: NEXT ip: flag=1: RETURN 1AE4
320 IF LEN(x$)=1 THEN x=ASC(x$):RETURN ELSE x=VAL(x$):RETURN 1D9D
330 DATA 24, 5 049F
340 DATA 2,2,2,2,5 059E
350 DATA 3.,8., 4.,8., 3.,2., 4.,2., 9.,7.,49,232,5. 0D4B
360 DATA 7,7,5,5,8 05E0
370 DATA (,+M,a,i,1,),(-,M,a,i,1,),(+,U,L,),(-,U,L,),(+,R,A,l,i,g,n,) 17C6

```

Here we see the DATA statements where the find and exchange strings are stored
- note the decimal points in line 350 distinguishing numbers from characters

BOMBER.BAS by Simon Stone

This game deals with one of those awkward everyday situations we all find ourselves in from time to time – you're in a plane, almost out of fuel, circling lower and lower over a city of tall skyscrapers. And your only hope for survival is to keep dropping bombs on to the (presumably uninhabited) buildings to clear your path for landing.

In the version presented here, you can only drop one bomb at a time, which means that you have to choose the precise moment for "bombs away" quite carefully. While a direct hit will wipe out a skyscraper completely, you'll probably

find that most will take two or more strikes to get rid of them. At the moment, your plane can withstand no more than one collision with the buildings, but it's straightforward enough to change the 2 in line 60 to the maximum number of collisions you'd prefer.

Admittedly, the gameplay lacks the realism and subtlety of, say, Heathrow Air Traffic Control, but it's often quite a challenge to bring the plane down safely, and an amusing diversion despite (or perhaps because of) its pre-occupation with dangerous ordnance. An added bonus with this implementation is that

it's very easy to adjust the level of difficulty – not only can you alter the resilience of the plane in line 60, but you can even tailor the size of the bomb to your personal requirements.

If you'd like to be able to blow up more for your money, simply modify the strings which appear in lines 90, 100, and 110 to four asterisks and four spaces, respectively, and also change the 3 in line 110 to a 4. If you're looking for more of a challenge, then it's just as easy to reduce the bomb to only one or two characters in size by using the same technique with smaller numbers.

```

10 GOSUB 320:GOSUB 210 09F1
20 m$=bm$:GOSUB 190:x=x+1 0B54
30 IF x=81 THEN IF y=30 THEN 140 0D64
40 IF x=87 THEN m$="" :GOSUB 190:x=1:y=y+1 12CE
50 IF y>=16 THEN IF MID$(b$(y-15),x+2,1)<>" " THEN h=h+1:PRINT b$; 1A14
60 IF h=2 THEN 170 06FC
70 IF INKEY$=" " THEN IF NOT(b) THEN IF y<>30 THEN b=-1:bx=x:by=y+1 1E0C

```

This is the game's main loop, moving the plane across and down the screen – line 70 drops a bomb when the SPACE bar is pressed

```

80 IF NOT(b) THEN 20 0866
90 m$="****":SWAP bx,x:SWAP by,y:GOSUB 190 12BC
100 m$="" :GOSUB 190:SWAP bx,x:SWAP by,y 1334
110 IF by>=16 THEN MID$(b$(by-15),bx+1,3)=" " 0FD9
120 by=by+1:IF by=31 THEN b=0 0C65
130 GOTO 20 0467

```

Lines 80-130 control the falling bomb – make sure that there are three spaces between the quotation marks in lines 100 and 110

```

140 m$="WELL DONE! You made it!":x=3:y=5:GOSUB 190      172D
150 m$="Hit [N] to quit, any other key to play again...," 1B59
160 x=3:y=7:GOSUB 200:IF UPPER$(INPUT$(1))="N" THEN END ELSE RUN 1E68
170 FOR a=0 TO 9:PRINT b$,:m$=" @@@":GOSUB 190:m$=" ***":GOSUB 190:NEXT a 1E96
180 m$=" " :GOSUB 190:m$="You crashed!":x=3:y=5:GOSUB 190:GOTO 150 1DEE
190 PRINT at$CHR$(32+y)CHR$(32+x)m$ :RETURN 136D
200 PRINT at$CHR$(32+y)CHR$(32+x)m$ :RETURN 1495

```

Lines 190 and 200 are both all-purpose screen printing sub-routines, the difference being that line 200 has a vital extra semi-colon

```

210 PRINT,"You are in a plane which is rapidly losing altitude." 221F
220 PRINT,"Drop bombs on the buildings before you crash into them." 2474
230 PRINT TAB(30)"Press [SPACE] to drop a bomb." 1766
240 FOR a=1 TO 15:b$(a)=SPACE$(90):NEXT:FOR x=7 TO 81 STEP 3 19A3
250 r=INT(RND*15)+1:MID$(b$(r),x,3)=CHR$(150)+CHR$(154)+CHR$(156) 1719
260 FOR a=r+1 TO 15 080A
270 MID$(b$(a),x,3)=CHR$(151)+CHR$(154)+CHR$(157) 10E7
280 NEXT a:NEXT x 0921
290 FOR a=1 TO 12:PRINT:NEXT:FOR a=1 TO 15:PRINT b$(a):NEXT 1CCD
300 x=1:y=4:b=0:PRINT TAB(4)r$SPACE$(81)ro$; 13FD
310 m$="":GOSUB 190:RETURN 0C49

```

Lines 240-310 construct the skyscrapers of random heights, which are then stored in the string array b\$

```

320 OPTION BASE 1:DIM b$(15):r$=CHR$(27)+CHR$(112):ro$=CHR$(27)+CHR$(113) 1D8E
330 PRINT CHR$(27)"0":b$=CHR$(7) 0BA6
340 bm$=" "+CHR$(131)+CHR$(129)+CHR$(172):at$=CHR$(27)+"Y" 143D
350 c$=CHR$(27)+"E"+CHR$(27)+"H":PRINT CHR$(27)+"b0"+CHR$(27)+"c" 160C
360 PRINT c$:m$="** CITY BOMBER ** by S.Stone. Hit any key to play...," 2066
370 x=3:y=10:GOSUB 200:WHILE INKEY$="":n=n+1:WEND 155A
380 RANDOMIZE n:PRINT c$:RETURN 1296

```

This very last section sets up the screen, prints the titles, then obtains a random 'seed' by timing the delay before a key is pressed

Starters' Orders: RANDNUM.BAS by HFJ Callan

Under Starters' Orders this month is a program designed to help out beginners in BASIC who are having problems with their random numbers.

Examination of the manual reveals that Mallard BASIC features the **RND** function which will quite happily return a 'random' number. However, beginners tend to have two main problems with this. Firstly, they are faced with the task of converting the result of **RND**, which is a decimal between 0 and 1, into something more useful, like a whole number between 1 and 10. Then there is the added problem that **RND** produces exactly the same sequence of random numbers every time the program is run. Needless to say, this can add a rather unpleasant sense of *deja vu* to whatever the program does next.

If either of these two areas have been causing you difficulties recently, then a quick explanation of the RANDNUM listing should help. The part of the program which produces the numbers themselves can be seen at work in line 60. Multiplying the **RND** value by 1 (set to the value 58 in line 20) will give a random decimal between 0 and 57. This is then added to this to give a number between 1 and 58, and the result is

passed to the **INT** function which rounds it off to the nearest whole number, giving the variable **a** the value we wanted.

For this particular application, a list of 10 *different* random numbers is required, so some way is needed to make sure that each number produced has not been used before. The **STR\$** function converts a number into a string of characters, which are added to the string **e\$** each time a number is chosen. The advantage of this is that it is then easy to check whether a new number has been used previously, as the **INSTR** function will give a non-zero value if it can locate the new number within the list of numbers already produced. If the latest number has been produced before, the program will go back to line 60 and come up with another one.

Finally, there is the small problem we mentioned earlier that the **RND** function produces the same sequence of numbers every time. This is solved by line 90, which will loop back to fetch a different random number if the function **INKEY\$** indicates that no keys are currently being pressed. This has the result that numbers only reach the final stage of being printed if they are generated at the precise instant when a

key is pressed. Since the computer can loop around this section very quickly, even small differences in the timings of the key presses will still result in a very different sequence of random numbers being output every time.

At the moment, the program is set up to produce a selection of 10 numbers between 1 and 58. The program's author uses these numbers to choose lines on football pools coupons, as a sort of a high-tech alternative to the time honoured pin. But it should be easy enough to tailor the program to your own particular random number needs: the crucial variables to modify are to be found in line 20, where **t** is the range of the random numbers, and **p** is how many you want of them. Or if you need numbers with a larger minimum value, (from 10 to 68, for example) then change the 1 which appears in line 60.

A slightly more substantial challenge would be to try and find some way of disguising the required key presses. For example, they could take the form of a request to the user to type in their name. Hopefully we should have given you enough clues by now so that, after a little experimentation, you should be able to work out how to do this for yourself.

Listings

```

10 PRINT CHR$(27)+"E"+CHR$(27)+"H" 0B41
20 t=58:p=10:e$="" 062B
30 PRINT"Press any key ten times at random intervals " 1E58
40 PRINT:PRINT"The computer selection is:" 1887

```

These first lines set up the variables and screen display - modify line 20 to change the size/quantity of the random numbers produced

```

50 FOR b=1 TO p 067E
60 a=INT(RND*t+1) 07DF
70 a$=STR$(a) 04A8
80 IF INSTR(e$,a$)<>0 THEN GOTO 60 0EC0
90 IF INKEY$="" THEN GOTO 60 0B56

```

Lines 60-90 generate the random numbers, check to make sure that they haven't been used before, and wait for a keypress

```

100 PRINT a; 0532
110 e$=e$+a$ 0317
120 NEXT b 045C

```

Successful random numbers are printed out, stored in the string e\$, then the whole process is repeated

CHECK3.BAS by Adrian Wilkins and Peter Crane

One of the most annoying problems with typing in a listing is not being able to find your mistakes. The PCW, with its cheerful "Syntax error in line 30", will usually try and tell you where your most obvious ones are, but some of the more insidious errors in BASIC ("Subscript out of range in line 470") can occur far from the line where the original mistake is to be found. This program, which will now be appearing every other month in the Listings section, should help you to track down those elusive typing errors with the minimum of frustration.

The program reproduces the list of numbers which we print down the right hand side of each of our listings. The way that these numbers are calculated means that any significant changes in a line will be highlighted by that line getting a different check value to the original. So by comparing the numbers produced by your listing with the ones printed in the magazine, you should be able to narrow down your search to the particular lines containing your mistakes.

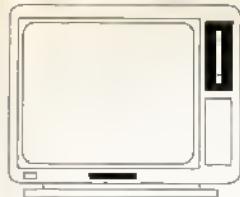
To use the program, first save your listing in ASCII format, by adding ,a to

the save instruction. So, if you wanted to check the RANDNUM program printed above, you would save it using save "randnum",a. Next, run CHECK3 and give the name of the ASCII file you want to be checked, along with the name of a file you would like the output to go to. This could be called RANDNUM.CHK, for example. The program then displays the appropriate check digits on the screen, on the printer (if selected) and in the output file chosen, which you can then examine at your leisure using the BASIC (and CP/M) command type.

```

10 INPUT "Program name ", prog$ 0F21
20 IF INSTR(prog$,".") = 0 THEN prog$=prog$+".bas" 14D8
30 IF FIND$(prog$)="" THEN PRINT "Program not found":PRINT:GOTO 10 21FD
40 OPEN "I", 1, prog$ 07B0
50 INPUT "name of file to write to";prog2$ 16A3
60 INPUT "Send to printer Y/N";ask$ 11A3
70 IF UPPER$(ask$)="Y" THEN prt%=1 0F96
80 IF prog$ ="" THEN END 0A0D
90 OPEN "O", 2, prog2$ 0817
100 WHILE NOT EOF(1) 0928
110 LINE INPUT #1,z$ 08A7
120 y$=UPPER$(z$) 05F8
130 check%=0 : j%=0 06BA
140 FOR i% = 1 TO LEN(y$) 09BB
150 y% = ASC(MID$(y$, i%, 1)) : IF y% = 32 GOTO 200 1068
160 IF y% <> &HFC GOTO 180 0A66
170 PRINT "Save it in b**** ASCII!" : END 11DC
180 j% = j% + 1 02FE
190 check% = check% + (y%-32) * (j% MOD 7 + 1) 0E08
200 NEXT 0414
210 PRINT #2,z$; TAB(70); HEX$(check%,4) 0E8D
220 PRINT z$; TAB(70); HEX$(check%,4) 0F22
230 IF prt%=1 THEN LPRINT z$;TAB(70);HEX$(check%,4) 1788
240 WEND 03F7
250 CLOSE 1:CLOSE 2: PRINT "done" 1041
260 END 036F

```



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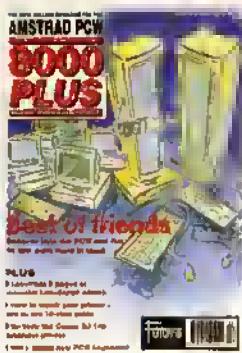
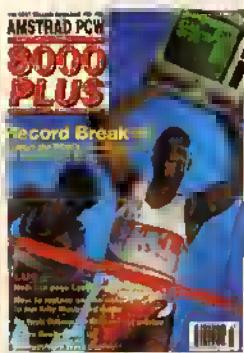
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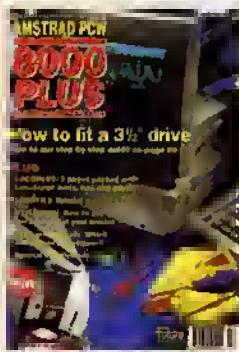
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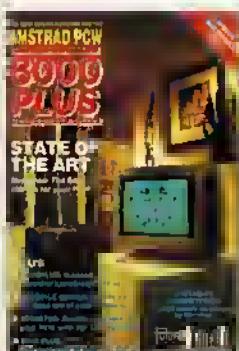
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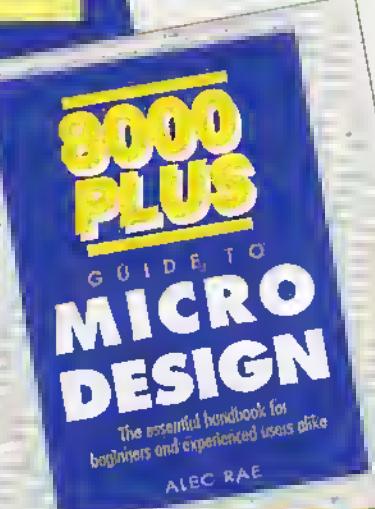
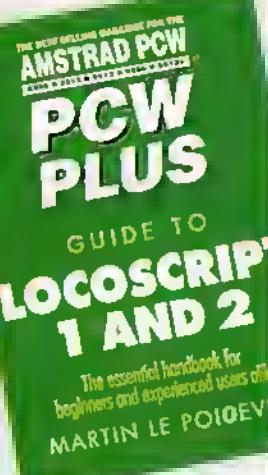
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- 512K RAM.
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- PC style 82 key keyboard.
- 1Mb disk drive with optional second 1Mb drive
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- CP/M Plus operating system.
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- 3.5" floppy disk drive.
- Choice of printer: daisywheel printer with exchangeable daisywheel and 15" platen or Canon Bubble Jet BJ10e.

PCW 9512.....£359.00
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The PCW9256 is the latest integrated word processor system package from Amstrad and is the replacement for the PCW8256.

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- 9 pin dot matrix printer.
- 256K RAM.
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- 82 key keyboard.
- 720K floppy disk drive with optional second 720K floppy disk drive.
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- Built In parallel Centronics interface.

PCW 9256.....£320.00

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The Good Software Guide

These pages provide a comprehensive guide to the Amstrad PCW software. Published in three monthly parts, this time it's the turn of Databases, Educational Software, Communications and Programming Languages. We've set out to cover every important piece of software we could lay our hands on, and to give you enough information to decide whether they are suitable for you. All software will run on both the 9512 and the 8000 series machines, though the former's daisywheel printer cannot print graphical output. The selection isn't exhaustive, but the software here represents what we think is the best of that currently available.

Databases

MASTERFILE 8000

£49.95 • Campbell Systems • 0378 777623

A specially written PCW version of the successful database sold on other Amstrad computers. It is fully menu controlled, and makes good use of the PCW's special screen and keys. It can deal with up to 8 separate data files at a time, so can cope with relational databases. Screen (but not printed output) can be elaborately laid out with boxes, lines etc.

PLUSES and MINUSES

- ▲ Works fast
- ▲ Wide range of layout options
- ▲ Handles 'relational' files
- ▲ Plenty of good example files
- ▲ Does arithmetic calculations within records
- ▼ Capacity limited by size of M drive
- ▼ Takes a while to learn all the features

CAMBASE II

£60 + VAT • Cambrian Software • 0766 831878

New creation of the old favorite PCW database. Most important change is the Copy FileSpec facility. You can set up a new database with potentially more entries than you've made previously for using the information from the original database. You can also change the fields to suit another set-up.

PLUSES and MINUSES

- ▲ Quick and efficient to use
- ▲ You can set up a database blueprint (FileSpec) which you can test thoroughly before entering data
- ▲ Includes powerful features like conditionals, loops, field validation, and specified layouts
- ▲ Simple parts of the program are well catered for in the manual
- ▼ You have to guess how to use the more advanced features
- ▼ Not much room for prompts
- ▼ Tendency to crash occasionally in FileSpec

LOCOWFILE

£34.95 • Locomotive • 0308 740608

The indexed pop-up database that runs from within LocoScript 2 and that goes even further than LocoScript 2 into a completely integrated software package. Unlike most databases, empty records take up almost no space on disc. This allows large record cards to be defined even if they won't always be used. Records pop up very quickly without having to exit from your document. Works best when used in conjunction with LocoMail.

PLUSES and MINUSES

- ▲ Very easy to use
- ▲ Unusually efficient use of disc space
- ▲ Can alter existing index - a very powerful feature indeed
- ▲ Automatically upgrades your LocoScript, LocoMail and LocoSpell to version 2.2
- ▲ Simple database helps you get a better feel for the program
- ▲ Carries out searches in partial strings

CHIBASE 3.0

£39.95 • Chasma • 081 399 9758

The updated version of the 'free format' database. You type in the text, mark the words to be indexed and then the file as a database. The updated version allows you to import and export ASCII data files and a chain delete option enables you to work your way methodically through the database deleting the records you don't want while keeping those that you do.

PLUSES and MINUSES

- ▲ Good amend, sort and recall features
- ▲ You can edit without a word processor
- ▲ Searches quickly through data
- ▲ Great for storing large amounts of data where the subject matter is variable
- ▲ Useful record template
- ▼ Can't run from M drive

DATASTORE II

£39.95 • Digital International • 0395 270273

Ideal for the novice, Datastore II allows you to remove the tedium from filing, updating and organising information. 32000 records, 32 fields, fast search facility. Function keys can have phrases assigned to them. Good for aches where the emphasis is on printed output.

PLUSES and MINUSES

- ▲ Flexible range of print formats
- ▲ Simple to use
- ▲ Calculation facilities
- ▼ Need to preset areas to a number of records before you start
- ▼ Slow at browsing through

DELTA

£99.99 • Compsort • 0483 425925

Delta is another of the heavyweights, like dBase II and Condor, but unlike them it's fully menu driven. Although the screen layouts are fairly flexible, there is a default "quiet" layout so you don't have to sweat at defining your menu. It could use better record indexing facilities. Particularly good for utility applications, once you have ploughed through the large manual.

PLUSES and MINUSES

- ▲ Records can contain up to 90 fields, plus groups of fields that may be repeated
- ▲ Screen layout can be easily defined, or "quiet" mode used
- ▲ Single page letter writer provides detailed mail merge
- ▲ Processes can be defined, and run from a set defined menus, for ease of use by others
- ▲ Very tall, and quite readable, manual
- ▼ Only one field may be used for indexing
- ▼ Very big program - lots into memory!
- ▼ Some of the menu options are confusing to errors

MINI OFFICE PROFESSIONAL

£39.99 • Database Software • 0625 859333

The Mini Office database retains its original format. It's a pretty standard end index type, similar to First Base. Good range of selection operations and arithmetic and fields. Can sort

over a combination of fields and print out a variety of smart layouts, and you can have up to 255 fields.

PLUSES and MINUSES

- ▲ Easy to use and intuitive
- ▲ Can use the data in the word processor
- ▲ Powerful selection and sort facilities
- ▲ Arithmetic on fields
- ▲ Text print facility lets you check your labels will print okay
- ▲ One command makes global changes

POCKET INFOSTAR

£69.50 • MicroPro/DRA • 0386 841181

Computational large programs, DataStar and ReportStar (both available independently). DataStar is a cancellation database, with screen card layout and indexing. ReportStar then generates the printed output, either from DataStar or CalcStar files. Powerful if you can use them but the code is horrifically overcomplicated, and the documentation just incomprehensible.

PLUSES and MINUSES

- ▲ DataStar is quite a good database with indexing and calculated fields.
- ▲ "Translating processing" feature allows cross referencing of data files.
- ▲ Can be integrated with other Pocket products, eg WordStar.
- ▲ Can take up to 255 fields per record
- ▼ Two volume manual is badly organised.
- ▼ There are separate programs to run for form design, data entry and reporting.
- ▼ Operation is still by obscure command keys, & in WordStar.

OBASE II

£56.35 (Ireland price) • Centresoft • 021 625 3399

The WordStar of database packages. Recently licensed "cheaply" for Amstrad machines. Obase II is a market leader in business computing. As you would expect, this means it is very powerful but very complex. It has a procedure language to allow you to write programs to manipulate the data, and you can construct index files for really fast access to large databases. If you can make the effort to learn it, it'll serve you well.

PLUSES and MINUSES

- ▲ Powerful command language
- ▲ Indexing facility makes very large databases fast to handle
- ▲ Can handle very big databases
- ▲ The data can be easily altered after its entry
- ▼ Manual is daunting
- ▼ Can't easily alter the screen record layout
- ▼ For an expensive package, you still only get 32 fields per record
- ▼ Can be unfriendly unless you have some programming skills

FIRST BASE

£29.95 • Minerva • 0392 437756

Billed as a simple database for the first time user, First Base is quite a competent cheap card reader. The manual is copiously printed, and weak on diagrams which doesn't help things.

One weakness is getting printed results out of First Base - either you settle for crude lists, or you have to create a template in LocoScript which is awkward to do. But overall, it's pretty good value for money.

PLUSES and MINUSES

- ▲ Can alter the index field at any time
- ▲ Simple to use screen editing makes entry easy
- ▲ Good value
- ▲ Can easily browse through the database picking out a set by hand
- ▼ Manual is badly laid out and difficult
- ▼ Printed output is awkward

POPULAR RETRIEVE

£61 + VAT • Sagesoft • 091 213155

A high-power package that is relatively easy to use with password security if desired, calendaring, automatic sorting and deletion of sets of records satisfying given conditions. It also has sophisticated sort and select commands, and can change the structure of an existing database. All this is done by a set of commands rather like a programming language. Printed formats are rather limited though and the program itself runs both drives, making use of an 8256 impractical.

PLUSES and MINUSES

- ▲ Easy to use for a powerful package
- ▲ Advanced sorting and selection commands
- ▲ Screens can be written to files
- ▲ Create/delete subsets with ase command
- ▲ Labeling/mailmerge routines included
- ▲ Can change structure of existing database
- ▼ Impossibly big program for 8256
- ▼ Printed output limited - must use mailmerge

SCRIPT2BASE TEXT2BASE

£29.95 each • Encyclasoft • 0270 811690

Two free-form databases to be used with LocoScript and PrtText respectively. Complete rewrite of FT=2B, the beauty of these databases is that you first enter all your text in the word processor and import it as an ordinary (non-ASCII) text file into the database. You then attack all the words you want to see indexed as keywords so that you can go on to compile index and carry out searches.

PLUSES and MINUSES

- ▲ Very easy to use
- ▲ Allows you to organise your collection of discs like a encyclopaedia
- ▲ Can generate new files made up of selected parts of existing ones
- ▲ Can send any part of a document to the printer on a line-by-line basis
- ▼ No text editing facilities within the database themselves
- ▼ Dreadful documentation

SMARTCARD

£80 + VAT • Pecan Software • 0272 425012

A cancellation card index database which is now the nearest thing available to Cardbox. Small and fast, you can sort the records, index up to three fields and do simple arithmetic in

fields. Can't put background text (eg. titles) on records or printouts.

PLUSES and MINUSES

- ▲ Good clear screens
- ▲ Plenty of on screen help
- ▲ Fast and high capacity
- ▲ Easy to use
- ▼ Can't put background text on printed reports
- ▼ No way of exporting data for mailing or graphics

MICROFILE Sold in The Micro Collection

£49.95 • Saxon Computing • 0964 550697

Microfile is a well implemented simple database, driven by plenty of menus and on-screen prompts. It's fast and has good screen control, although it has some size restrictions. Microfile comes as part of a software suite, "The Micro Collection", which is good value (Microfile, Microwrite, MicroSpread, Flexlabel and Lock-It).

PLUSES and MINUSES

- ▲ The price includes component word processing, spread sheet, labelling and encryption programs
- ▲ Plenty of menus and on screen prompting
- ▲ Very flexible formatting for screen layout and printing
- ▲ Numeric fields can be expressions to be calculated
- ▲ Indexing is fast and can be on several fields
- ▼ Maximum of 20 fields per record
- ▼ Limited facilities for totalling up fields

Educational

BUSINESS FRENCH

£49.95 each • Apex Computing Services • 0273 727477

Four language learning packages which enable the Euro-conscious professional to get to grips with commercial jargon in another tongue. Areas covered are business, technical, travel, restaurants, communications and social - all with separate sub-sections to ensure that every nationality is covered. A basic knowledge of the language concerned is, however, essential.

PLUSES and MINUSES

- ▲ Fun and easy to use
- ▲ Comprehensive range of vocabulary
- ▼ Program needs cassette to be really good
- ▼ Some poor screen displays

IANKEY CRASH COURSE

£24.85 • Iankey • 071 607 0187

A fully traditional typing tutor, taking you through basic keyboard exercises. There's a lot of explanatory text, which gets in the way second time around. Definitely competent, but a bit boring.

PLUSES and MINUSES

- ▲ Mostly avoids boring initial drills
- ▲ Very full on-screen information
- ▲ "Fail" option is able to cut out some text if it gets repetitive
- ▼ Unimaginative use of graphics
- ▼ It doesn't always ensure that the cursor is properly aligned with the exercise text

2 FINGERS TOUCH TYPING

£24.95 • Iankey • 071 607 0187

Despite its name, a useful typing tutor in that it specifically caters for people who can already get by on keyboards with two fingers. You are gradually introduced to touch typing, so your speed doesn't drop while you learn. Fills a necessary slot in the Typing Tutor market.

PLUSES and MINUSES

- ▲ Suitable for improving two finger typists without much drop in speed
- ▲ Full on screen instructions
- ▲ Exercise material is interesting text, not letter drills

- ▼ Explanation text is annoyingly verbose in some lessons
- ▼ It doesn't always ensure that the cursor is properly aligned with the exercise text

GIANTKILLER

£17.35 + VAT • Topologika • 0733 244682

A mathematics adventure game loosely based on Jack and the Beanstalk. Lots of intriguing puzzles which should stimulate any student up to GCSE standard. Not the best adventure game ever written but great forinking mathematical fun!

PLUSES and MINUSES

- ▲ Puzzles plausibly integrated into scenario
- ▲ Progression of game is well defined
- ▲ Puzzles introduce a lot of valid mathematical challenges
- ▼ Understands only very simple commands
- ▼ Saving a position takes a long time
- ▼ Won't be of particular help in exams

ANIMAL/VEGETABLE MINERALWORLD WISE

£14.95 • Bourne Educational • 0794 523301

Aimed at the younger market, 7-15 year olds. Both the programs work by learning as the child sees them. Think of an object and the computer tries to guess it. If it is wrong, the child is asked for a question which would allow the PCW to be right next time, and it learns.

PLUSES and MINUSES

- ▲ Can be used as many times as the child's imagination holds out
- ▲ Performance can be analysed by a teacher after a session
- ▲ As you build up a base of objects and questions, they can be saved for reuse
- ▼ It needs a lot of typing, hence a lot of supervision
- ▼ The PCW starts with only two objects known, so it takes time to get going
- ▼ Documentation has hardly been altered from cassette based versions
- ▼ Since it is for young children, more imaginative use of the screen would be nice

BETTER SPELLING

£18.95 • School Software Ltd • 010 353 61 45399

This is a spelling course aimed at the 8 to adult age group. It consists of a series of well organised, short lessons each dealing with one topic, like plurals or which version of there /their/they're to use in a sentence. The use of the PCW screen is rather unimaginative, and doesn't hold your attention.

PLUSES and MINUSES

- ▲ Well thought out lessons to emphasise particular points
- ▲ Teaches words in a sentence context as well as in isolation
- ▲ Lessons can be selected in any order you wish from a menu
- ▲ Is proof against mischievous key pressing
- ▼ Boring use of the screen
- ▼ No operating instructions

CHEMISTRY BIOLOGY/PHYSICS

£22.85 each • School Software • 010 353 61 45399

These two are fairly traditional question-and-answer tests. You are faced with a choice of 10 topics, and then asked 10 or so questions each, where you have to fill in the blank in a statement. There are prewritten notes beforehand, and if you get it wrong you are given a clue. Aimed at 12-16 year olds.

PLUSES and MINUSES

- ▲ Would challenge a GCSE pupil well
- ▲ Pinnable notes introduce topics
- ▼ The fill in the blank questioning style has little flexibility for different answers
- ▼ No option to add questions for a specialised syllabus

- ▼ Some careless errors, like incorrect facts and hard to decipher chemical formulae

MICRO MATHS

£24.95 • LCL • 0491 579345

Supposedly covering 8 to adult ages, this seems an O-level type program covering topics from calculus to tables. A good implementation on the PCW with proper use of the screen. Questions are picked at random from a pool, so may repeat but not run out. Replies to questions are typed in mathematical notation, like $x=2+3$.

PLUSES and MINUSES

- ▲ You can pause in use BASIC as a calculator while you think
- ▲ "Unlimited" question set
- ▲ Comes with a "free" book of AEB O level questions
- ▲ Good hints and explanations
- ▼ Questions in a topic repeat occasionally
- ▼ Some irritants, like the clock and beeps, are annoying
- ▼ No flexibility to add questions for a particular syllabus

AMSTAT 1,2,3,4,6 AND 7

£28 • £40 • SC Coleman Ltd • 0530 523319

A suite of six statistical routines including a business analysis program, forecasting and resource management. Individual prices range from £27.95 to £39.95. Very sophisticated, but perhaps a little awkward for beginners.

PLUSES and MINUSES

- ▲ Good range of statistical functions
- ▲ Good manual
- ▲ Can produce good quality graphical results
- ▼ Some editing procedures very long winded
- ▼ Needs some expertise to use properly
- ▼ Weak in checking that input data is valid

ULTIMATE QUIZ

£14.95 • David Greenhough Computing • 0274 636475

Ten quizzes in topics as diverse as the Highway Code and the Italian language. Clean screens and an easy to use program make Ultimate Quiz an excellent entertainment and good value for money, too.

PLUSES and MINUSES

- ▲ Optional nights and crosses game included with either quiz
- ▲ Incorporates an editing file for easy updating of questions
- ▲ It's very versatile - up to 8 people can play
- ▲ None of the questions are repeated
- ▼ Some of the questions are a little esoteric

ULTIMATE SUMS

£14.95 • David Greenhough Computing • 0274 636475

Another fine piece of educational software from DGC. The computer quite simply throws up a series of sums which you (or your child) are required to answer. There are lots of little extras: graphics, jokes, a timer, rumpus buttons for up to 8 players and various levels of difficulty, right up to cube root.

PLUSES and MINUSES

- ▲ Will appeal to all age groups at all levels
- ▲ Includes facility to print out scorecards
- ▲ Great way to learn an unpopular subject
- ▲ Lots of different options
- ▼ Challenges are a little slow to load

CROSSGRID

£14.95 • David Greenhough Computing • 0274 636475

"Crossword puzzles without clues" is how the packaging describes this program. Instead, a grid of numbers is presented to the player, each number representing a letter. The skill is to analyse the possible combinations and produce words. Various levels of difficulty mean that it is suitable for all ages - although some of the words, even in the lower levels, can be rather

advanced. Ideal for the adult crossword fan.

PLUSES and MINUSES

- ▲ Easy to install
- ▲ Variety of challenge levels
- ▲ Ideal for lateral thinkers
- ▲ Totally addictive
- ▼ No competitive element
- ▼ Some very obscure words

SUPERMATHS

£16.95 • Abacus Software • 0689 83629

Specifically designed for the PCW, this program exercises basic numeracy skills in children. Questions are asked in quick fire volleys of tea and coffee all four operations (addition, subtraction, multiplication and so on). Scores are automatically recorded.

PLUSES and MINUSES

- ▲ Special original Test and Worksheet modes included the latter is ideal for teachers
- ▲ Very efficient scoring method
- ▲ Numeracy level is very basic
- ▲ New version has enhanced screen displays
- ▼ Some of the questions may start to look familiar after a while

MARKSHEET

£16.95 • Abacus Software • 0689 83629

Aimed at the teacher rather than at the class, this vertical software utility will add up front end of term marks for each pupil; it will then keep the information on disc and print it out neatly on A4 paper. It can be made to fit your own specifications.

PLUSES and MINUSES

- ▲ Easy to use - takes five minutes to learn
- ▲ Mark sheets can be inserted into LocoScript
- ▲ Good on screen help
- ▲ Averages worked out for you
- ▼ Underpowered and slow
- ▼ Expensive for what it is

LANGUAGE TUTORS

£19.95 each • Kosmos Software • 05255 3942/5406

Four programs with identical formats to help you learn French, Italian, Spanish and German. They can be used just as effectively by students of those languages learning English too. Very versatile series of programs and useful adjuncts to conventional language learning.

PLUSES and MINUSES

- ▲ Can edit the lessons yourself to include new words
- ▲ Useful self test option
- ▲ Completely bilingual packages
- ▼ Vocab learning only - no grammar lessons
- ▼ Would have been more useful if they had also included audio cassettes

MATHS MANIA

£16.95 • School Software Ltd • 010 353 61 45399

For children between the ages of 8 and 12, this program offers 5 levels of difficulty in multiplication and 2 in division. A very good program for exercising basic numeracy skills and for practising some mental arithmetic.

PLUSES and MINUSES

- ▲ Program provides a chirpy feedback on the score of the user
- ▲ Large numbers appear on the screen
- ▼ Surprisingly enough, no addition or subtraction exercises are provided
- ▼ Screens could be made more visually exciting for the younger users

BETTER MATHS

£16.95 • School Software Ltd • 010 353 61 45399

A continuation of Maths Mania for the next age group 12 to 16 year olds. Topics are more varied and cover, among others, statistics, simple interest and algebra. Each topic consists of a series of ten multiple choice questions. At

the end of each set, the percentage scored is shown.

PLUSES and MINUSES

- ▲ Realistic level of difficulty practised
- ▲ Program makes a first class revision aid

FUN SCHOOL 3

£14.99 • Database Software • 0625 859333

A disc for the under-5s. Fun School 3 comprises six games which aim to improve the basics of early education - counting, matching and recognising letters, and so on. The main character is a teddy bear, and his rewards for your good work mean that he gains a new house, car, rice cream and fills the coffers of his piggy bank.

PLUSES and MINUSES

- ▲ Program has excellent and delightful graphics
- ▲ The basic ideas are original
- ▲ It is of genuine educational value
- ▼ The disc is rather slow to load

JUNIOR PLAYTIME

£14.95 • David Gueenough Computing • 0274 636475

A set of fun educational games for the four to eight-year-old range. Not school work brought home and made fun, though - this is more a test of general ability than general knowledge. Games include matching pairs of words, guessing numbers and a maze puzzle.

PLUSES and MINUSES

- ▲ Plenty of games to choose from
- ▲ Very easy to use
- ▲ Can "edit" certain parts of the package
- ▲ Includes a score sheet option
- ▲ The graphics are excellent
- ▼ Some games more fun than educational
- ▼ No documentation

SCHOOL'S OUT

£14.95 • David Gueenough Computing • 0274 636475

Not so much "out" as number to be sent. The sequel to Junior Playtime, aimed at seven to fourteen, the five games on this disc are definitely more games than "tests". But they do include some of the intellectual "greats", such as Reversi, Othello, Hangman and Four in a Row (Connect 4), which will stimulate thought and reasoning rather than simple reaction.

PLUSES and MINUSES

- ▲ Good selection of games
- ▲ Four or five difficulty levels for each game
- ▲ Good use of graphics
- ▲ Challenging and fun
- ▼ Documentation is on the disc rather than hard copy and is not very clear anyway

YES CHANCELLOR!

£17.35 + VAT • Topologica • 0733 244682

Wait! Don't skip over Yes Chancellor! because it calls itself an "economics simulation" program. Instructure and fun to use, you type in your annual budgets (tax rates, public spending, etc.) and see your popularity fluctuate and the economy crash. Great for economic obsessives, also an amusing game in itself.

PLUSES and MINUSES

- ▲ Simple but effective model of the economy
- ▲ Has booklet explaining economic principles
- ▲ Teaches economics and political pragmatism
- ▼ Can get boring as a game
- ▼ You won't adjust the model of the economy, so it can be too simple

Communications

8256UKM7.COM

Public domain (i.e. free!)

P.D. software documentation is often poor but this program has an above average document file. UKM7 was written to support ASCII file

transfers using error correction and a dumb terminal either for use over the phone or between two Amstrads. Between two PCW's file transfer is possible at a staggering 31,250 baud which is even faster than PIP! Easy to use for beginners and better than KERMIT, UKM7 provides a cheap and excellent way to communications after you've got fed up with the PCW's MAIL232, 8256UKM7 is available from the Public Domain Special Interest Group, or most bulletin boards supporting the PCW machine.

PLUSES and MINUSES

- ▲ Cheap (the price of a phone call)
- ▲ Easy to use, and helpful menus
- ▼ Modem7 version of Xmodem error checking supported
- ▼ Single file and Batch Mode transfers
- ▼ "Quiet" mode for slightly faster transfers (on-line transfer progress support disabled)
- ▼ Only ASCII, no Virtdata
- ▼ You need to find a PD software source (e.g. use a modem and MAIL232 software)

MINI OFFICE PROFESSIONAL

£39.99 • Database Software • 0625 859333

The ultimate package is as comprehensive as anything else on the market. It can display both ordinary text screens and the "Viewdata" block graphics used by Prestel. You can adjust baud rates from 75 to 9600, separately set for transmit and receive, straight terminal emulation for use with Telxon Gold, and XMODEM and KERMIT file transfer protocols for error-proof transfer of long files. Would be well worth the money just by itself - and of course you're getting four other very good programs as well.

PLUSES and MINUSES

- ▲ Very comprehensive - a genuinely useful package
- ▲ Ordinary text and "Viewdata" block graphics
- ▲ Can save setups under names and recall them, so you only need work out your baud rate/speeds once
- ▲ You can set keys to return strings, such as Telecom Gold passwords
- ▲ Comes preconfigured to use Prestel and Telxon Gold

CHITCHAT E-MAIL VIEWDATA/COMBO

Sagesoft • £69.99/£68.99/£99.99 • 091 284 7077

Two communications programs for the 8000 series machines that have been around for a good time now. Most of the features you will need are here: message text editor, preprogramming automated tasks (if you use a suitable "intelligent" modem), directory of stored numbers, copy to printer, and a very useful connect timer which so you can watch your phone bill climb! E-mail is used for simple text phone links like Telxon Gold, whereas you'll need Viewdata if you want to use Prestel. The Combo pack contains E-mail and Viewdata.

PLUSES and MINUSES

- ▲ Good, clear documentation
- ▲ Easy for first timers to use
- ▲ Built in text editor for message preparation
- ▲ Pre-definable tasks executable at any preset time if automated
- ▼ No error corrected file transfer (i.e. Xmodem or CRC)

DIALUP

£72.40 • PMS Communications • 021 643 7668

Offers both E-mail and Viewdata operations. Very easy to use, and offers an XMODEM transfer protocol unlike Sages Chitchat. If you are buying a modem too there are some excellent bundled deals in the box, e.g. the Miracle Terminate WS4000 modem.

PLUSES and MINUSES

- ▲ Simple to use
- ▲ Comprehensive file transfer commands, including XMODEM and the increasingly

popular KERMIT

- ▲ Runs from the M drive
- ▼ Manual is not PCW specific, and the references to 5.25" discs are tedious

Programming

BASIC NEEDS

£8.15 • LuxSoft • 0726 850820

A BASIC bundle for programming novices, which requires a small amount of foreknowledge to operate. Consists of five files that can be run under Mullard BASIC, including FRED, the FriendlyText Editor, which is an extremely agile and versatile file editor and program editor. Basic Needs is excellent value for money. A voluntary contribution can be made to the RNLI when you buy this - more details from LuxSoft on the number above.

PLUSES and MINUSES

- ▲ Uses of LocoScript keys
- ▲ Easy to use
- ▲ Loads of features

HISOFT C

£49.95 • Hisoft • 0525 718181

A very good C compiler, fast, produces good compact code. It includes complete with the Hisoft integrated text editor ED80.

PLUSES and MINUSES

- ▲ Compiles programs into ordinary CPM .COM files
- ▲ Produces compact code
- ▲ Fast and inexpensive
- ▲ Comes with integrated text editor
- ▼ No floating point arithmetic

ARNOR C

£49.95 • Arnor • 0733 68909

Good compiler with floating point arithmetic, but not as fast or as cheap as Hisoft C.

PLUSES and MINUSES

- ▲ Excellent integrated text editor
- ▲ Floating point arithmetic
- ▲ Comes with a complete .COM file, needs special runtime support program
- ▼ Hisoft C is faster and cheaper

MIX C

£33.95 • Advantage • 0242 224340

American C compiler. A fuller package, including text editor, graphics and tutorial comes at £49.95. There is also machine code assembler and examples, available separately for £8.95 each.

PLUSES and MINUSES

- ▲ This package features an excellent C tutorial
- ▲ Comprehensive implementation and massive manual
- ▼ Definitely not for the non-programmer

PASCAL 80

£49.95 • Hisoft • 0525 718181

A standard full Pascal compiler that produces compact code, comes with the ED80 text editor and a stand alone programmers editor.

PLUSES and MINUSES

- ▲ Well integrated text editor - when you hit a compilation error you are taken to the correct point to edit it
- ▲ Short compilation time
- ▼ The manual doesn't set out to teach you about Pascal

HISOFT FORTH

£19.95 • Hisoft • 0525 718181

Forth is an unusual language, somewhere between assembly and C. This is one of the few compilers available for the PCW.

PLUSES and MINUSES

- ▲ Comes with a Forth editor
- ▲ Quirky and unusual implementation

▼ Manual doesn't teach you Forth

THE VICAR

£29.95 • Tansys • 071 607 5844

A programming tool for serious programmers. If you have several hundred lines of code held in several files on a disc, you can lose track of which variables are used where. The VICAR produces a concordance listing and other diagnostics, to help you find bugs and maintain the program.

PLUSES and MINUSES

- ▲ Easy to use but still flexible through proper use of options
- ▲ Amstrad version all at a special low price
- ▲ Good manual
- ▼ Only of value to large programs
- ▼ Limited value to most PCW users (except BASIC buffs)

ALL YOU EVER ...

£29.95 • CP Software • 0993 823463

Program is ridiculously entitled All You Ever Wanted To Know About Graphics, The Universe and Everything on the PCW 8256/8512 but were Afraid to Ask. It's for the experienced programmer who needs fast, smooth floating and professional looking graphics output. It has a library of machine code routines which you can use in any language from Mullard Basic to machine code.

PLUSES and MINUSES

- ▲ You can produce professional graphics
- ▲ Doesn't program included on the disc
- ▲ Routines are very wide ranging
- ▲ Excellent value for money
- ▲ New routines of interest coming up including with printer control
- ▼ Not recommended for beginners
- ▼ Quite expensive to use from Basic

DEVpac 80 MKII

£49.95 • Hisoft • 0525 • 718181

Version 2 of the PCW hacker's first choice of development system. Substantially upgraded from the original with a new, quite powerful debugger, and a Mini Office suite to run from which includes the individual utilities or your own finished programs.

PLUSES and MINUSES

- ▲ Powerful assembler producing RELOC .COM files
- ▲ Good hex facility for Basic programmers
- ▼ Text editor antiquated and clumsy
- ▼ Weak monitor

MAXAM II

£49.95 • Arnor • 0733 68909

CPM machine code development system incorporating an editor, assembler and monitor. Allows you to disassemble any of the memory banks including extra memory on M drive.

PLUSES and MINUSES

- ▲ Very versatile assembly language programming environment
- ▲ Flexible monitor capable of bank switching, unconditional breakpoints and symbolic debugging
- ▲ Tailored to meet all CPM Plus programming requirements
- ▲ Program can cope with some undocumented Z80 instructions
- ▲ Program assumes basic familiarity with the Z80 assembly language

MODULA 2

£54.95 • Hisoft • 0525 718181

A compiler. Modula-2 is the successor to Pascal, good for large programs requiring separate compilation. Complete with text editor.

PLUSES and MINUSES

- ▲ Full implementation with extensions
- ▲ Includes libraries of predefined modules
- ▲ WordStar type screen editor included
- ▼ Compilation process is long and

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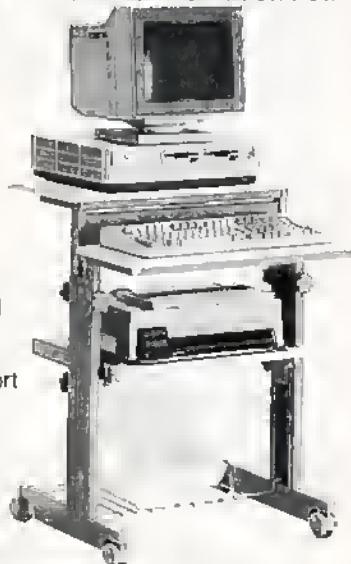
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Tipoffs

The Santa's grotto of the PCW world - that's Tipoffs. No fancy wrapping paper, no tacky tinsel, no overcooked mince pies - just five pages of thumping good Hints and Tips on all aspects of the PCW: hardware, software, LocoScript, CP/M, BASIC, DBASE: all these and more get an airing on the special Christmas Tipoffs tree!

A special place is reserved for Paul Seaman's great tip on making 0k files in LocoScript - £20 is winging its way to him!

And don't forget - if you have any PCW tips or questions that will start the New Year off in style, send them in to us at our Freepost address: Tipoffs, PCW Plus, 30 Monmouth Street, Bath BA1 2BW.

And don't worry - despite the magazine's name change, Tipoffs will remain its old scintillating self!

Sew clever!

18 months ago I set up the Twiga (Giraffe) Sewing Group, with some of the local African ladies making up designs of animals.

In making the designs, I tried several DTP packages, but could not make an accurate chart for them to follow. So it was back to good old LocoScript 1.

I have the PCW printer, so can only do these to 80 width.

I therefore use two layouts, the first with Pitch 10, LS, LP5, the second with Pitch 15, LS, LP7. Both give me 'square stitches'. You can see that I colour code the stitches using letters and other symbols.

It usually takes a few experimental print outs, but they do eventually begin to look very like the real thing. I hope you will agree!

Mrs Jill Stanley, Dar es Salaam, Tanzania



Big game on the PCW using little more than LocoScript and a bit of imagination.

Sage school

Those who use the Sage ChitChat communications program can work with the built-in Text Editor if they wish, but this is unlikely to satisfy those who are accustomed to the delights of Protext in creating their documents, or who have files already in Protext they wish to transmit.

Importing Protext files into ChitChat, though, is perfectly possible, if you follow these steps:

First you will need an ASCII version of the required Protext file (which may be called, for instance, SAGETEXT.DOC). Boot up with Protext, and load SAGETEXT.DOC. Check any last minute adjustments, and make sure that the left margin is 0.

Press [STOP] to get the A> prompt back, and type FORMAT to make sure that everything is tidied up nicely, including that zero left margin.

When the A> prompt reappears, \$ [RETURN] will save the file in its

most recently edited version.

At the A> prompt, type in PRINTF [RETURN]. You will be asked for the output filename of the new ASCII file which you are creating, and you can perhaps name it SAGETEXT.ASC. Type this in and [RETURN].

You will then be asked for the name of the input file (which is still SAGETEXT.DOC). The file will then be written to disc, but you will have to push the [SPACE] bar for each page of the document, as instructed.

Press [F1] to check that the new file is really present in the directory, and boot up with Sage ChitChat. When the main ChitChat screen shows, remove the Sage disc.

Insert the disc with the Protext document (the ASCII version) on it, and press [F5] for the Text Editor.

You will be asked for the filename, so in this case we will give the name SAGETEXT.ASC.

Baffi-ED

Can you tell me how to use ED.COM - CP/M's text editor.

Peter Byrnes, Coventry

8000 Plus: No. And I very much doubt that anyone can. The trouble is that 'ED' is not a text editor, it's a line editor, which means that you can only deal with one line at a time, and it's terribly slow. You may read nasty things about it in manuals, and they're all true. If you do want to play around with it, you'll find it on your CP/M discs somewhere.

Use a good text editor instead. RPED (also on your CP/M disc, type SUBMIT RPED to get it going) is OK. Protext used in its Program mode is a great deal better.

Jumbo Jetsam

I have a problem with a very large Jetsam file to which new records are continually being added. The program which maintains this file has a facility to delete unwanted records, using DELKEY. When I used this for the first time, the deletions seemed to be correctly applied; the deleted records were no longer accessible, and the record count was correct, about 20% of the records having gone. However, when I checked the file size it had not changed.

I have got round the problem by writing a program which reads the Jetsam file sequentially and writes it to the M: drive; the new file is then copied back and is the correct, reduced, size. This is a bit cumbersome and I think there must be a better way. Can you help, please?

P W Goodrum, Maldstone, Kent

8000 Plus: Not really. When you first create a Jetsam keyed file, the data records are written on to the disc in the order you create them, the most recent coming at the end of the file. Add another one, and that goes on the end again, extending the file.

What happens when you delete a file is that Jetsam simply marks the file as deleted. The data is not removed, and the other records are not all 'shuffled up one', and so the size of the file is not reduced - the phenomenon which you have discovered. The saving grace is that the 'deleted' file spaces are available to be overwritten by future records - which will happen: if you delete 20 files, then add 20 more in, the file should be no larger.

This is why we need keyed files, of course - giving all this dotting around, computer has to be able to keep a track of what is where.

Press [F1] [EXIT] and the question will come up "Do you wish to save this file?". Replace the Protext file with the Sage disc and press [ENTER].

Your ASCII file is now saved onto Sage, and can be used for any function that ChitChat offers.

Ian Ruund, London WC1

8000 Plus: Eagle-eyed Protext users will have spotted that this tip includes within it the answer to the question of making an ASCII file in Protext.

Normally, this question does not arise, because Protext stores its text in a fairly ASCII-like manner, quite unlike LocoScript.

However, it is still not clear enough for some programs: CP/M's TYPE command, for instance, cannot cope with Protext files, and almost any 'communication' job - including PCW to PC - will need this sort of ASCII file.

Erratic driving

I use a "Home" 9512, and have access to another 9512 at work.

I have recently tried to interchange discs but find that discs copied on the "home" PCW will not load into the other without problems. The screen flashes a few times, then beeps, finally locking the PCW which will not then reset using the [SHIFT], [EXTRA] and [EXIT] keys.

I suspect the drive of the "Away" PCW which seems rather noisy, although it loads some discs without problems. Error messages seem to indicate disc problems which are not apparent on the "home" PCW.

Can you offer me any words of wisdom?
Major R H Chapman,
Scone, Perth

8000 Plus: Make sure that the disc that you are using to boot the "Away" PCW is a program disc, and not a data disc. We've all done that at some stage, and if you do do it, you will get the beeps that you mention and the machine will 'lock out'.

If this does happen, don't turn the machine off. Just put the program disc into the drive and press the [SPACE] bar.

On the other hand, if you are sure that the discs you are using are program discs - or if the machine is already booted, it could be something to do with the drives. The heads may be in slightly different alignments, so that they can read their own discs, but not those of other machines. This seems more likely than four corrupt discs - and more likely than one of the drives being dodgy if they work perfectly well the rest of the time.

Finally, be careful about using your boot discs on somebody else's machine. Software houses quite naturally get rather worked up about that sort of thing, and start musing about piracy and their livelihoods. Not that we're suggesting anything in this case, of course!

Arrayed in splendour

I have found that in BASIC I can store several variables under the same name by putting a number in brackets after each of them. But I don't seem to be able to get beyond the number 10 doing this - I always get a 'subscript out of range' message. Is there any way round this, or have I reached the limit of Mallard's capabilities?

Sebastian Wilkins, Droitwich

8000 Plus: Far from it. What you have clung to is a very useful feature of Mallard BASIC called 'arrays'. These allow you to store several pieces of information under the same name, but with a different number 'tag', which will be in brackets. You can then access the whole set of information simply by changing that number in brackets. For instance:

FOR x=1 **TO** 5: **PRINT** array(x): **NEXT**

will print variable(1), followed by variable(2), and so on. There could be anything - perhaps the amount of money each of five people owes you.

Mallard is a bit unusual because it actually allows you ten such 'tags' for each variable before it complains.

However, you can easily stop it complaining. All you have to do is tell it

how many variables with tags you want to store - the 'size' or 'dimensions' of the variable 'array'. You can do this with a simple statement before you assign any number to that variable:

DIM array_size(50)

Now you can assign up to 50 numbers using the same format: array_size(1).

That is the answer to your question.

But 'dimensions' has a special meaning in this context. You can have variables with more than one dimension. For instance:

DIM arrayboard(3,3)

would set up an array with 9 spaces in it, which would be referred to as arrayboard(1,1); arrayboard(1,2); arrayboard(1,3); arrayboard(2,1), and so on to arrayboard(3,3). Programmers often use this to store information for use in games or as part of a database information network.

For instance, in the above example, you could represent all 9 parts of a noughts and crosses diagram, for instance, the variable holding 1 if it was a nought, 2 if it was a cross and 0 if it was still empty. arrayboard(1,1)=1 would put a nought in that square.

You could also find out information: **PRINT** arrayboard(1,1)

would just return "1".

Three-dimensional and four-dimensional arrays: **arrayboard(3,4,23,2)** are similarly possible. Notice that when you have more than one dimension, you have to declare it with **DIM** before you use it - even if both dimensions are less than 10.

You are not theoretically limited in the number or size of such arrays. But you do have to bear in mind that the whole point of **DIM** is to set aside space for variables should they be needed - and that multi-dimensional arrays are going to gobble up a great deal of space.

One more point - the computer assumes that if you dimensions is space for 10 variables, they will be variables 0 to 9 (unless you tell it otherwise, the computer will always begin to count from 0). If you try to make, say, variable(15) part of the array, it won't work, even if you've not defined, say, variable(3) to make up for it.

On my version of Mallard at least, there seems to be a bonus - you can get variable(0) through to (10) without a **DIM** statement. That's 11 variables, but I wouldn't want to trust it in an important program!

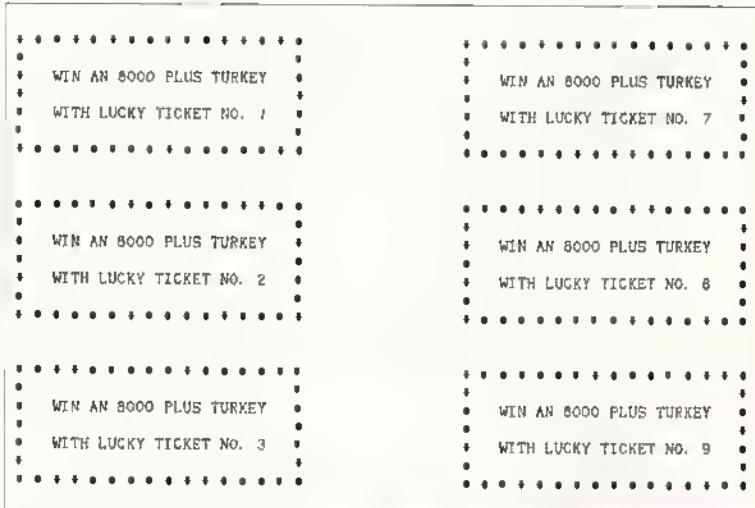
Ticket number 2

The instructions given in September's Tipoffs for the sequential numbering of labels seem to be unnecessarily complicated. The page numbering code works perfectly well in the main body of the document.

Once you have created, adapted or found a labels template it is quite easy to design a ticket to suit your needs, but don't forget to include the code **[+]PN** which will number your tickets. **[COPY]** this 'page' and **[PASTE]** it ten or twenty times before printing the document. If you need to print more tickets, change the first page number in the document using **[F5]=Document** on the Disc Manager Screen. The numbers can be altered using the 'Inspect Document' option - without the need to re-open the file. Then set the printer to print the next sequence of labels.

In order to print twelve tickets on A4 paper, you must use a little trickery to fool the printer into believing that it is handling a continuous label strip. Make six copies of your ticket and print these six 'pages' (don't forget to tell the computer that it is continuous paper). Using **[F5]** you must then alter the page numbers to start at 7. Return the paper to the printer, and while in the printer set the **[F6]=Left Offset** to 45. When printed, the next column of tickets will line up neatly beside the first - all clearly numbered and ready to for the guillotine. Much easier than using all those footers, surely?

Fionna Eden-Buswell, Glasgow



8000 Plus: LocoScript 1 users will have to adapt the printing to their needs while in the printer mode.

LocoScript 2 users: choose a 'labels' paper template (such as 2" labels) for this job, and check that it is set to continuous paper. If it is a labels format, it ought to be.

You must also make sure that the paper size that you are using matches the paper you're told the printer you're using. Use the **[F5]=** menu under document set up (**[F1]** from the editing screen) to adjust it.

If you are in all worried about this, just a glance in the direction of the LocoPlus pages in this month's issue.



Could there be a simpler and more cost effective way of creating numbered tickets than by using LocoScript?

X marks the spot

If you're a 'Spot the Ball' addict, have a PCW 9512 and a Mini Gothic 15 daisywheel, here's a handy way of filling in your coupon without going to the expense of a special program.

First open a new LocoScript file and call it 'Spotball' or something similar. Next set up the following parameters -

Pitch 15:Line Pitch 6:Line Space

Type in the number of capital X's you require in a solid block, or any shape you fancy, to cover the ball position and copy the whole as a block, making sure you include the codes.

Return to the disc manager screen; press D for Direct Printing mode and paste in your block of X's.

Feed the coupon into the printer with the ball bar and then position it manually using the paper feed knob for the vertical setting and the left offset procedure for horizontal positioning of the print wheel. Make sure that you have put the Mini Gothic printwheel into the printer.

Press [RETURN] and the X's will print out on to the coupon so that you end up with something like the picture.

This 15x18 grid will give you 270 attempts but you can, of course, have as many as you like between 46 and 540.

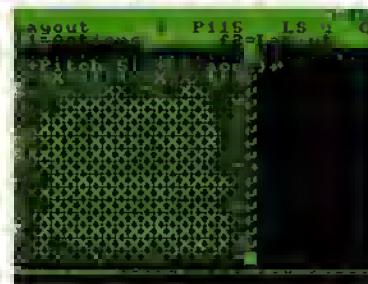
Don't forget to put the Left Offset



This is the finished product. Lots of X's, and a great chance of winning - even if this looks more like a 'Spot the Albatross' entry back to 0 afterwards, or future work may be printed out in the wrong position.

R Pilling, Harpenden, Herts.

8000 Plus: Set the Pitch, Line Pitch and Line Space using [+JP15 [+LP6 and [+LS 4/[FULL STOP]. Set the offset in Direct Printing by pressing [PTR], and then selecting 'Increase Offset' and 'Decrease Offset' until the print head is in the correct position.



This is how the document should look on the Direct Printing screen before you print it out. Now just press [RETURN] to print it

Make a Date II

Users of any other computer will be familiar with system dates and date stamping files, as discussed in last month's Tipoffs. The best way of emulating these on the PCW is to buy an SCA Professional Interface or something similar. Once you have set the time once, these devices keep a track of it, and update the computer's clock every time you turn it on.

Files on discs that have been set up as in last month's Tipoffs will automatically have their dates appended when they are used.

The system date is often available to application spreadsheets, eg SuperCalc II, which will recalculate a spreadsheet with any formulae referencing a cell containing TODAY once you have loaded it. This can enable you to produce complex calendars and periodical reports.

Dhase II has its own special system date (but not time) which it uses in reports and it is possible to initiate this with an autostart routine, as follows: Make up a .SUB file called M:DB.SUB using a text editor (RPED is ideal) as follows:

PUT console to file date.cmd

DATE

PUT emmsle ~

ED date.cmd

<#A4D10C9D

<BISET DATE TO

<B11C2D

<B1

```
<
<ERASE
<@ 2,5 SAY "DBASE SYSTEM
DATE SET TO: "
<@ 2,35 SAY DATE<
<WAIT
<|
<E
DBASE date
ERASE date.cmd
```

Line 14 must have an ESC (Hex char 1B) replacing the '|'. If your text editor doesn't handle hex characters (RPED doesn't) then you can change the '|', (which has the hex number 5B) to hex number 1B using SID.

Type **SID M:DB.SUB**, then at the # prompt type **D10B9 [RETURN]**. This displays the 5B at 019B (if it doesn't, retype your DB.SUB file) and at the next # prompt, you must type **F019B,019B,1B [RETURN]**, and at the next # type **WM:DB.SUB [RETURN]**. Exit by pressing [STOP].

To run DB.SUB from the M: drive all these .COM files must be on that disc when you start - copy them using PIP: ED, DATE, SUBMIT, PUT, PIP as well as DBASE with associated utilities.

Now type **DB [RETURN]**: as it runs, the PUTs create a new file called DATE.CMD, which is batch edited using ED (automatically, notice!) into the following form:

SET DATE TO 11/28/91

ERASE

@2,5 SAY "DBASE SYSTEM DATE SET TO: "
@2,35 SAY DATE()
WAIT

"DBASE date" then 'autoruns' a start up of DBASE 2, jumps the normal request to manually set the date and uses the new DATE.CMD to set its own, reports the date as set, says 'waiting' and waits for a key press. At this point it resumes the normal .(dot) DBASE command line. Henceforth, today's date will be prefixed to all REPORTS and be returned by calls to DATE(), being displayed in the USA form: MM/DD/YY.

The WAIT permits the use of any existing 'autorun' .CMD files by file combination (eg A:APPLCTN.CMD). Do this by inserting a new line 16: PIP M:date.cmd=date.cmd,appletn.cmd

Alternatively substitute A:\$1.CMD which will run by typing **DB APPLCTN**. If you have no need for this facility you can later edit out line 13 (the WAIT line).

Remember to copy the working file to your A: disc using **PIP A:=M:DB SUB**

P.S. Does any reader know of a .COM file which will sort entries by time and date - and then display them on screen in that order?

Gordon Furster,
Newcastle Upon Tyne

Faster Basic

May I add a few more short cuts to the list published in November's Tipoffs?

1. If you wish to edit a number of lines that are close together, use the AUTO line number command. Type AUTO followed by the first line number and [RETURN]. Edit that line as it appears, then press [RETURN], and the next line will automatically appear. Edit that, press [RETURN], and so on. [STOP] to break the sequence.

2. If you wish to repeat a statement such as "IF....THEN....GOTO", type it in, press [RETURN] and press the left cursor key to repeat the line, edit the line number and make any other alterations you require, then repeat the cycle of [RETURN], left cursor and edit until you have finished.

You should not be in AUTO mode when using this procedure.

3. When writing a program, make the first line you write 65534 SAVE "MYPORG". Then go into AUTO mode (if you wish) and develop your program. Any time you wish to save it, LIST the program, hit the left cursor key, delete the line number and press [RETURN]. Your program is saved with little or no trouble.

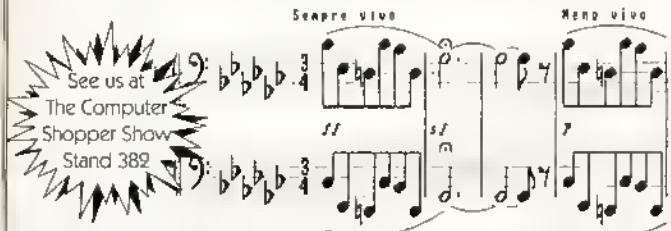
Of course, if your program runs correctly through to line 65534, it will be saved again. If it gets caught up somewhere along the line, though, it won't. Then again, you wouldn't want to save a version that didn't work, would you?

Alan Kinsman, Salisbury, Wilts.

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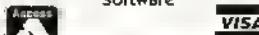
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Giving out

Reference to your remarks about using OUT in BASIC [OUT takes - Tipoffs, October], strictly speaking you need OUT 246,0 to revert the screen scrolling to the original position. OUT 246,255 will probably look right, but is out of true.

OUT 247 is a useful one that was not mentioned. Try it with parameters 0,64 and 128, and you will see different results. OUT 247,64 isn't very interesting, but now invert the screen, and try again! These flashes can be a useful alternative to a beep as a reminder.

OUT 248,9 [on] or 10 [off] can be used to turn the disc drive motor on and off. OUT 1 operates the light to the motor, but for some reason it doesn't always work in BASIC. FOR n=1 TO 100:OUT 1,12:NEXT will have turned it on by the time you have had 100 tries! Perhaps someone can find out how to turn it off.

Undoubtedly the most useful OUTs to a programmer are 240-243. These bring hidden memory into readable memory. It is just possible to obtain some effects without machine code from BASIC (eg, poking a single pixel on to the screen) but practical use really needs some machine coding knowledge. Try this program:

```
10 FOR n=32768 to
 32900
20 r=RND*255:FOR m=1
 to 20:OUT 242,130:
 POKE n,r:NEXT
30 NEXT:END
```

David Sarson, Paignton, Devon

8000 Plus: Mr Sarson also came up with the tip that PRINT CHR\$(27)“c”CHR\$(0) would invert the screen - but that, too seems temperamental. PRINT CHR\$(27)“b”CHR\$(0) should re-invert it. Try it and see.

Zero rated files

In LocoScript, I usually have several items of work on the go at any time, and since I use LocoSpell with its large dictionary, I often have insufficient space on my discs to edit some of my larger files. My problem has been partially solved by placing the dictionary file on the reverse of the (8512) A: disc, and creating a 0k ET.AL file on the front.

You can do this by renaming a group - say group 1 - as, for instance, ANYTHING (use [F4] in LocoScript 2). This will make a file in that group called 'ANYTHING.GRP'. Now erase that file (although you can't see it!) using [F3], giving ANYTHING.GRP as the name of the file to be erased.

This will leave a copy in Limbo, so set 'Show Limbo files' under the [F8]

menu, and using [F3] again recover it from Limbo, renaming it ET.AL in the process, and move it to group 0, where it will have to be for the program to be able to use it.

When I boot up LocoScript now, it asks for the next disc; I simply turn over the A: disc and press [ENTER] (this allows the dictionary to be copied onto the M: drive), and then turn the disc back to the front side so that the M: drive dictionary is the one that is used.

Paul Seaman, Houston, Renfrewshire

8000 Plus: If you have followed last month's tip about adding a message to your LocoScript boot-up screen, you should use this tip to create a 0k READ.ME file, that would save valuable space on your boot-up disc.



Putting a 0k ET.AL file in group 0 of your start up disc tells LocoScript that there are more files on another disc - it will prompt you to insert that disc as part of its booting routine

BASIC in action

Can you show me the way, using BASIC, to:

- clear part of the screen of my 8256 so as to keep the titles, etc., while the program continues elsewhere
- to move, say, an arrow up, down, or across the screen by means of the cursor keys and on pressing another key get a response to a chosen item.

A J Pressnell, Inverness

8000 Plus: a) The 'escape' sequence CHR\$(27)+"J" will clear from the cursor to the end of the page, so if you create want to keep the top three lines of the screen and erase the rest, move the cursor to the start of the fourth line and call that sequence:

100 PRINT CHR\$(27)+"Y"+CHR\$(36)+CHR\$(32)

110 PRINT CHR\$(27)+"J"

See last month's Tipoffs to learn how this 100 works.

b) The solution to your second question would take a lot more programming. You're looking for a pointer that can move around the screen in such a way that the computer knows exactly where it is, and what is underneath it, so that if you pressed, say, [RETURN] while the pointer was over a menu option, it would carry out that command. Most DTP packages will nicely work along these lines.

The trouble is that Mallard doesn't

do other BASICs do, automatically keep a track of where the cursor or pointer is. You have to keep updating the information through your program. You will also have to keep updating the screen, so that when the pointer moves, it erases its previous position: you'll also have to arrange for anything it passes over to be restored.

Having done that, you will have to check whether the pointer's current position is an important position, and whether [RETURN] has been pressed. You could do this by having a list of important co-ordinates to check through, or by having a 'DIM'med array (see 'Arrayed in Splendour' elsewhere in this month's Tipoffs pages) which stores them.

To help you on your way, use a simple command such as 10 FS=INKEY\$:IF FS="“ THEN 10 to detect a keypress; if ASC(F\$)=1 then the left cursor key has been pressed, if ASC(F\$)=6, then the right cursor key has been pressed, if ASC(F\$)=30 then it is the down cursor key, and if ASC(F\$)=31 then it is the up cursor key. 13 would be either the [RETURN] or [ENTER] key.

Given that information, you can adjust the pointer's co-ordinates, check its position, see if [RETURN] has been pressed, act if it has, or wait for the next move if it hasn't.

Missing printers

May I offer a word of advice to those PCW 9512 users out there who might be thinking of replacing their lumbering daisy-wheels with a more flexible 24 pin printer, or who have already done so and can't get it to work in CP/M?

My new Citizen Swift 24 worked fine after I had loaded the LQ1500 driver supplied with LocoScript 2.23.

But in CP/M - nothing! Not a light. Only a long wait and then the frustratingly unhelpful error message:

PAR not ready - Retry, Ignore or Cancel

Page 407/8 of the User Guide gives details for setting up the Parallel Printer Port (PAR) - DEVICE LST:=PAR. It is well worth adding this to your PROFILE.SUB file, otherwise you will find it constantly being overridden by the default instructions which are on your start-up disc.

After much consultation, Amstrad's much maligned Customer Services department finally came up with the answer. The built-in printer, i.e. the daisywheel, must remain connected if you want to print out in CP/M from any printer connected to the Parallel Printer Port. If you're only interested in LocoScript, then it doesn't matter.

It doesn't make much sense to me, but I promise it works.

John Revell, Cavendish, Suffolk.

8000 Plus: Sad but true: CP/M wants the original printer attached to the computer when you use Paint, Mini Office and so on with an external printer on the 9512. Locomotive have found a way round it for LocoScript, which implies that there must be a way round it in CP/M; apparently the newer versions of CP/M have ironed out the bug (for instance, the version supplied as part of Locomotive's printer support pack). In the meantime, has anybody out there got any ideas?

Speed out type

At last, I thought, an answer to our prayers when you published Geoffrey Childs' program Typecast. The program seemed to work fine, because I could hear the printer chattering away in the background. But when I inspected the paper, it turned out that all the letters had been printed in the same place, one on top of the other. Help please!

W A L Watt, Brentwood, Essex

8000 Plus: You weren't the only person to have this problem, and since there may be even more people out there who are wondering what is going on, a hint - make sure that in line 30 there is a space between the quote marks, and that they aren't just consecutive speechmarks! I think you'll find that your space is missing. That should make the program a little more useful!

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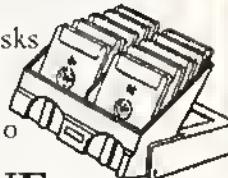
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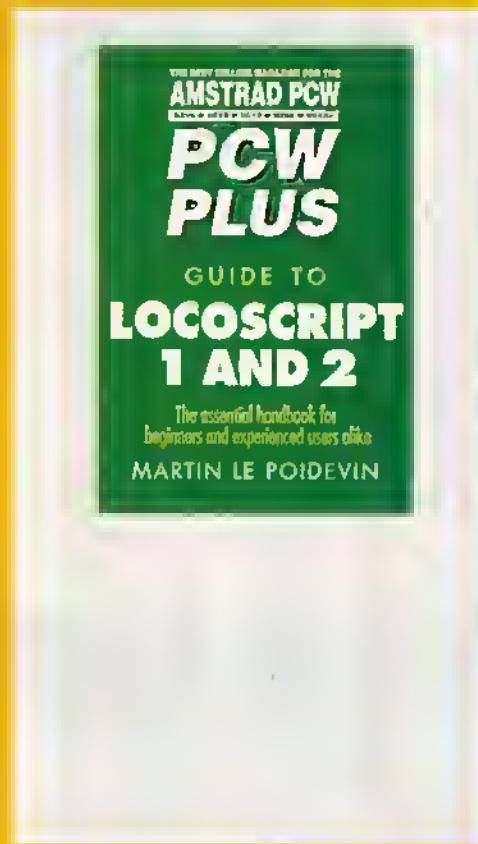
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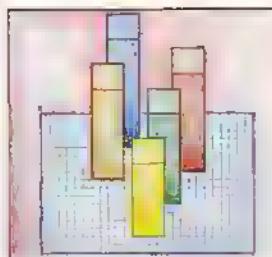
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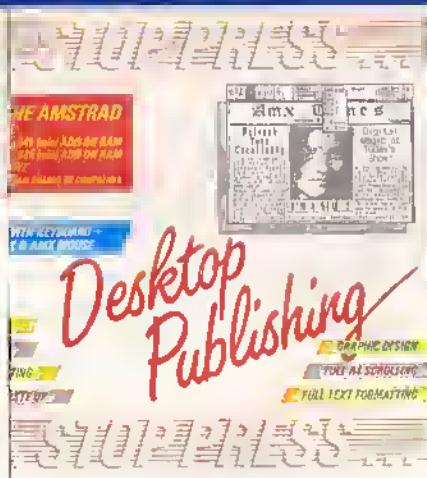
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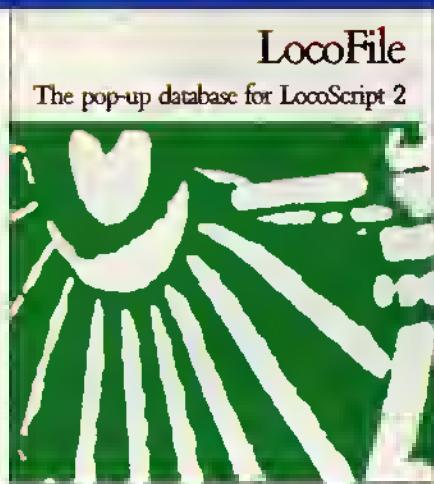
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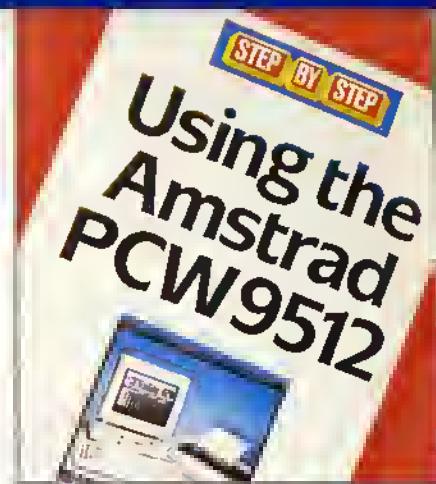
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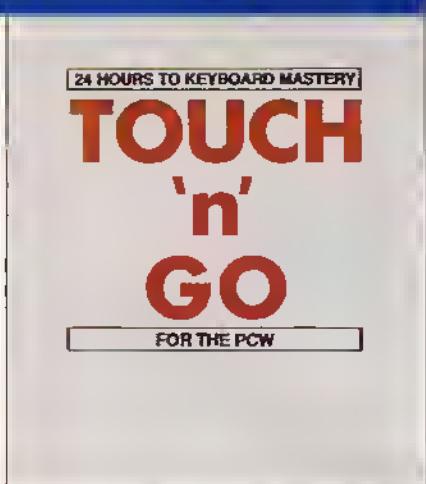
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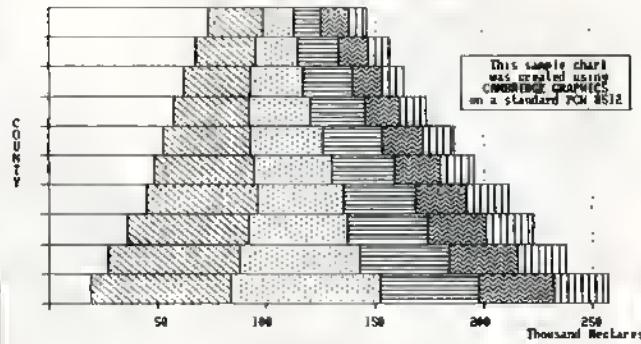
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Drive dilemma

As a contented owner of an PCW8512, I was dismayed to read in November's 'Postscript' your reply to Helen Cox's letter in which you forecast the demise of the 3 inch discs. Whilst 3.5 inch discs are attractive, being available at much less cost, nevertheless, the fitting of a 3.5 inch drive as you described in the July issue would appear to be of doubtful advantage. The resulting hybrid, it seems to me, is hardly likely to be as convenient as the two existing 3 inch 'A' and 'B' drives, and that quite apart from the installation work involved.

Would not the best answer be a separate single, or better still, a twin 3 inch drive unit which could be plugged into the 8512 via a cable link in the same way as other manufacturers provide additional drive units? Existing 8512 owners would then have the best of both worlds. Is there any likelihood of such a unit becoming available?

Norman Miller
Newcastle upon Tyne

8000 Plus: There are already 3.5 inch drives that can be switched in and out of operation, so that you can select 3.5 inch or 3 inch as you wish. The installation of a 3.5 inch drive really isn't difficult - but if you are unsure, there are companies that will do the work for you, at very reasonable rates - check this month's *News Plus* for details. As for hybrids - well, a mixture of drive sizes is no more hybrid than having the twin 3 inch drive situation of 178k in the top and 720k in the bottom!

Spot the indifference

Having been an avid user of my trusty old 8256 since it was first introduced I have only been a casual purchaser of 8000 Plus, and seeing that a new range of PCW (or should that be PCW?) had been launched I purchased the November issue.

My first impressions were that it was a new all singing all dancing machine. How wrong could I be. The new PCWs are just repackaged 8000 series

computers, with the only major change being the 3.5 inch drive. They don't even resemble PC computers which have detachable monitors. I would say that the 8000 series look more like a true PC. Amstrad should have taken a leaf out of the book of all the companies who supply add ons for these machines.

For example, I would have had the design of the 8000 series monitor, a separate base unit to house the drives, and supplied the new 102 key keyboard. The base unit would be made available in several options, single 720K floppy drive, twin 720K floppy drives, and why not include a 20 meg internal hard disc option to replace the second drive. This would follow true PC tradition, indeed if the main board were designed as a mother board internal cards like modems, interfaces and so on could be added all in one neat case rather than a range of piggy back items hanging on the back!! As far as the printer is concerned, I prefer the crisp lines of the 8000 series computers, all I would do here is improve its printing speed.

Having said all this there is no doubt in my mind that Amstrad will sell millions of new PCW's over the next few years. But I for one will stay with my old but well respected machine, upgrading it by fitting an internal 3.5" drive, purchasing a Teqniche 102 keyboard, and when funds permit I hope to obtain a 20 meg GEM hard drive.

Malcolm Crabbe
Harpden, Herts

8000 Plus: Your comments about the new PCWs are apt - there really hasn't been anything revolutionary here to comment on, apart from the drive size. I am glad that you are intending to stay with the arrangement you currently have, and the upgrades you mention seem sensible. As for your ideal set up - well, we can all dream; you should the feature on page 10 to discover Howard Fisher's idea of the perfect set-up!

Well spent?

With reference to 'Bailing out', Centre Column Page 78 November Issue. Owning a 8256 Amstrad that is in use every day except Sundays is a very big help to a Match Secretary of a large bowling association, only to find the built in printer go limp on the bail arm, and find for a small spring at the cost of 60p plus postage not repairable at any shop I approached. The first con they pull is that we have to replace the whole inside, cost above repair, best to buy a new printer plus an interface! It costs £300 - £350, and this I had to do. If only the gentleman in New Zealand had written earlier! Taking your advice I phoned CPC Spares. For the benefit other spares seekers, the springs arrived promptly, and the printer is back to normal, I could have saved a great deal of money.

G E Higgs
Manor Park,
London

Value verdict (I & II)

I felt that I simply had to reply to the letter, from Andrew Dawn, featured in Postscript in the November edition of 8000 Plus.

I agree entirely with the comments made by Simon Stansfield. Yes £2.25 could be deemed expensive for a magazine. But Andrew Dawn is missing the point, namely that 8000 Plus amounts to considerably more than the sum total of its pages. It is a gold mine of invaluable information, which if collected using your binders can still be treasured in years to come. When I first bought my PCW9512, I unpicked it, learned to use the bundled LocoScript software, then sat back with a sort of 'Well that's that then!' feeling. That was until I discovered 8000 Plus, and a world beyond LocoScript. Don't get me wrong, LocoScript is excellent as I feel all of Locomotives products are, but without the insight provided via 8000 Plus (I deliberately didn't say magazines such as 8000 Plus, since it has no serious contenders) the PCW user would be suffering from tunnel vision.

This is over and above the fact that 8000 Plus is a quality magazine.

Furthermore 8000 Plus would more than pay for itself if only to find a product advertised, that you can't find in your local computer store and/or at a better price. I would like to add that my dealings with the advertisers in 8000 Plus have also shown them to be a responsible body of people.

I don't own shares in 8000 Plus, but if Andrew Dawn wants to complain about a computer related body, not necessarily 8000 Plus, I could give him a shortlist of several pages.

S J Lockley, Tavistock

Reading this month's issue No. (62), I was interested in the article called 'Cost of Loving' sent in by Andrew Dawn of Derby.

It seems to me that Andrew is talking about the 'Cost of Living' and not the 'Cost of Loving'. If he loved his 8000 Plus magazine like I do he wouldn't let the increase in price worry him. I am sure that if the mag cost £5 per issue I would still buy it, which is in my mind, 'The Cost of Loving'.

Harvey Clayworth
Mansfield, Nottinghamshire

8000 Plus: Thank you for your comments. It is clear that most of you appreciate why prices have to increase, as much as we all dislike it. However, Andrew Dawn may be pleased to note that this month, 8000 Plus goes back up to its full 92 page issue size, so perhaps he may alter his views. These were two of a great number of letters that we had



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on this subject - we thank all of you for your loyalty!

Fair swap?

Like many of your readers, I shall shortly be raiding the piggy-bank to buy a 3.5 inch drive to install in my upgraded PCW8256. The advantages of doing so are clear, but I have two specific aims in addition to the usual ones:

a) Our department at school has bought mouse-controlled Atari ST's with, of course, 3.5 inch drives. Will I be able, through ASCII or otherwise, to create and use programs that can be used on both systems?

b) Your reply to Roy Graham's query in the November edition said "you are instantly in a better position to transfer from CP/M to MS-DOS (with the appropriate software)". Does this really mean what it says? I also do a bit of flying as a hobby and there are some good flight simulations which operate in MS-DOS and can be used as a training aid. Will the alterations mean that I can look forward to using them on the humble 8256?

Alan Arnot
Chelmsford

8000 Plus: On the first question, no. The two systems are just not compatible in terms of their operating systems. Right, on to the second point. What we are coming back to with your queries involves one word - transfer. The similarity in disc size does not mean that you can take programs which run on other computers with 3.5 inch drives, and run them through your PCW, with all the modification in the world. The new set up enables you to transfer data (with the help of programs such as 2-in-1) from your PCW to a DOS machine, for use on that machine. So, if you had created a LocoScript document on your PCW, you could 'customise' it at the PCW end, put it on to 3.5 inch disc, load up LocoScript PC on a DOS machine, insert the disc containing the data created in LocoScript PCW, and edit it at will on the PC. You cannot chop and change actual master programs - you can transfer data. Think of it like this. Say you had a piece of music on an LP, which you wanted to tape out to a cassette so that you could play it on your car stereo. You can tape the music from the record (the PCW), on to a cassette (the PC) without a problem. But you cannot then put the cassette on to the turntable of your hi-fi and expect to hear music. Master discs are not interchangeable; data is. By data, we mean documents that you have created and stored on 3.5 inch PCW disc.

Actually, there is a very good flight simulator available for the PCW as it is! We reviewed it in our March issue, and it is called MicroNav. It is a program written by pilots for pilots, and aims, among other things, to train you in

instrument flying. Produced by Micro Nav Ltd, the program costs £60, and is available by contacting the company at Mallard House, Duck Island Lane, Ringwood, Hampshire BH24 3AA, telephone (0425) 480264.

Head start

I have a sad story to tell, and I'm hoping one of your readers can help me resolve it. I lent my favourite game, Head Over Heels, to a friend who had just bought a PCW 8256. (I have an 8512). She returned it saying "it would not run". I questioned her closely, sparing only water torture, and it turns out she was not even sure how to run CP/M properly, so the disc may not be at fault. However, now I cannot get the game to run either! Horror! LocoScript says the disc has 0K used, and CP/M DIR says 'no files', and does the run sequence. I can't understand this, as my friend doesn't know how to format a disc, and is certain she has not done anything untoward. Ocean Software would love to help, but have stopped producing the game and have no stocks. Nor is it available in the shops. So is there someone out there who can either examine my disc professionally to see where the game is, or else let me have a copy of theirs? As Ocean Software are sympathetic towards my plight, I'm sure they would not consider this instance as a breach of copyright. My only other alternative is to throw the disc in the bin, but I'm not ready to give up without a fight. Can anyone help me please?

P A Tillin
Derbyshire

8000 Plus: Now come on, it is Christmas; if you can come to PA's aid, write to me at the Bath address, marking your envelope 'Head Over Heels', I will forward offers of help to PA.

Handy hint

I found Frederick Wren's MD2 size-chart in last issue's Tipoffs very useful. I have also created some scales for MD2 which are available as MDA areas on disc for those who have MicroDesign2. Phil Cole of the MD2 International Users' Group has agreed to make these scales available. To receive copies, just send a formatted disc and 2 x 18p stamps to him at 15 Elsham Close, Bramley, Rotherham, South Yorks, S66 0XZ.

The scales make layout much easier, cutting out the 'guess' factor; any page position can be plotted in advance and called up on the screen accurately by noting the cursor numbers at the base of the screenpage.

One scale (a complete A4 256K Upright Page) is designed to be transferred to acetate sheet or thin paper, to act as an overlay. It has cursor positions marked across and down the

page, rule lines, and also an incl rule.

The other scale consists of cursor positions only. This can be loaded onto the 'layout' page and used for on-screen manoeuvring while designing a page. (Before the final save or printout, the scale can be erased using 'block' in 'layout'). Of course, either scale can be loaded onto the 'layout' screen, or printed, as needed.

I hope MD2 users will find this as useful as I did in designing pages.

T Tillin

Derbyshire

8000 Plus: Great! Thanks for the info.

Disc dilemma

I would like to reply to Kenneth Clark of Aberdeen (November's Postscript) over his whinge about his nearest repairer being 90 miles away. I live in Cyprus and of the two Amstrad agents, one refuses to repair PCWs on the basis of the fact that they have 3 inch drives, and the other when approached wanted me to find an address in the UK for him to send them for repair. So, my 9512 is away in the UK being mended, over 2000 miles away. I sent it myself after a look in 8000 Plus for a suitable repairer.

Please, don't anyone in the UK moan about the cost of 3 inch discs, either. Here, they cost three Cypriot pounds - that's £3.60 sterling, and there is no back up when problems arise. So all I can say to you, Ken, is "Unlucky!"

I might also add that if anyone can tell me of anywhere closer for repairs I would be extremely grateful. My telephone number is Lanarcu (04) 635696.

Keep up the good work across the board - the mag is the best for the PCW. G S Gardiner

Lanarcu

Cyprus

8000 Plus: What lengths we PCW owners have to go to in order to keep our machines in tip top condition!

My word?

Bibliotec's Good News New Testament for the PCW was highly recommended in your magazine, so last November I sent for a copy. It was out of stock. Having heard nothing, I made one or two phone calls to them to be told that they weren't sure if they were going to produce it any longer, so I gave up on it. I now see that the whole of the Bible is going to be available on one disc. I bet I won't be able to get the OT as an add-on. P Crocker, Truro

8000 Plus: Er, no. There were some (ill-founded) rumours about Bibliotec, but happily supplies are now replenished - and new products being added too. See our review on page 29 for details!

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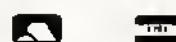
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Next month!

Welcome the new year in with PCW PLUS!

By now you'll probably be aware that the next issue of this magazine will be slightly different. We're changing our name to PCW Plus - a move which will ensure that we embrace owners of all five PCWs now in the range. The content of the magazine remains the same - you'll still find all of your favourite regular sections in full glory every month. And the magazine will just get better and better! We're going to be giving even more help to the beginner, with our special step by step tutorials. Plus, our unbeatable collections of hints, tips and advice will ensure that you are never in the dark about matters PCW again!

And, to ensure that we see the new year - and the new name - in with style, we'll be giving away a fabulous free gift on our January cover - special PCW Plus Tip Cards. Seven handy-sized cards contain the latest hints and tips on all your favourite programs - including LocoScript, LocoFile, Protex, Mini Office and MicroDesign. The cards have been put together by the experts - so you can be sure that the advice and help they contain is the very best around.

Whatever program you use, you cannot afford to be without a PCW Plus Tip Card to help you get the very best out of your software.

In addition, January's PCW Plus will herald the arrival of a brand new tutorial series on the Supercalc spreadsheet. We'll be showing you how to get to grips with the program in a special beginners' teach-in.

We're looking forward to a very busy 1992 - and we hope you'll share it with us!

The January issue of

PCW PLUS

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COMPETITION

Welcome to this month's back page competition. Well, it is Christmas, so a certain amount of seasonal frivolity has been allowed to pervade the usually studious and sober corridors of 8000 Plus Towers here in Bath! We've decided to back up this month's games special with a gift of a bundle of PCW games. We thought that it was about time you put your feet up, eased struggling with spreadsheets, duelling with databases and wrestling with word processors. Let's get festive, and relax with some harmless entertainment! So, what's on offer in the 8000 Plus bag of goodies?

First off, we've got our very

favourite compilation of games from CDS Software - The Complete Home Entertainment Centre. All you'll ever need to satisfy your thirst for game playing on the PCW! The package includes backgammon, a wordsearch, dominoes, card games, and, wait for it, darts! The last on the list is by far our favourite - we're totally addicted to the game!

If sport is your preference, how about another package from CDS - Sporting Triangles? This program is based on the TV Quiz show of the same name, and is sure to put even the keenest of sportsmen through some pretty gruelling paces! For those with a thirst for strategic games, we

bring you Tank Attack - again from CDS Software. The game comes complete with a board and playing pieces, and you have to plan how to invade enemy territory. Tank Attack is suitable for children of all ages!

If you'd prefer to take to the air, why not try Tomahawk - a simulation of life in the cockpit of the AH-64A Apache Helicopter - one of the US Army's deadliest aircraft. Or for those of you with a shine towards chivalry, we've got the adventure game Lancelot. Your task is to guide the knight through a three part quest of the Holy Grail - a mission which takes you through dark forests and furious battles. The game even includes a parchment map of Arthurian England, to help you navigate your course. Finally, if chess is your game, why not pit your wits against the PCW with Cyrus II Chess, one of the best chess games around for the machine. Check out our review of the package on page 57!

So, there's plenty to keep you occupied this Christmas! All you have to do - and you may fail to appreciate how the word 'all' is relevant to the task we're about to issue - is the following. Study the photograph above, and tell us, using the form, which Santa Claus is which member of 8000 Plus! The six people with the most correct answers win the game of their choice from the selection above.

Send your entries to 8000 Plus, Xmas Competition, 29 Monmouth Street, Bath BA1 2AP - to arrive no later than New Year's Eve!



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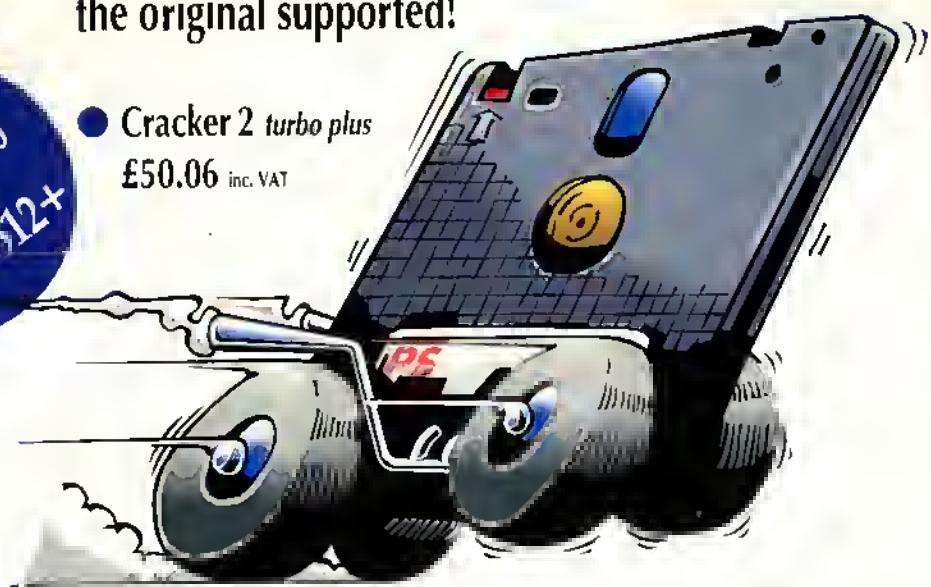
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